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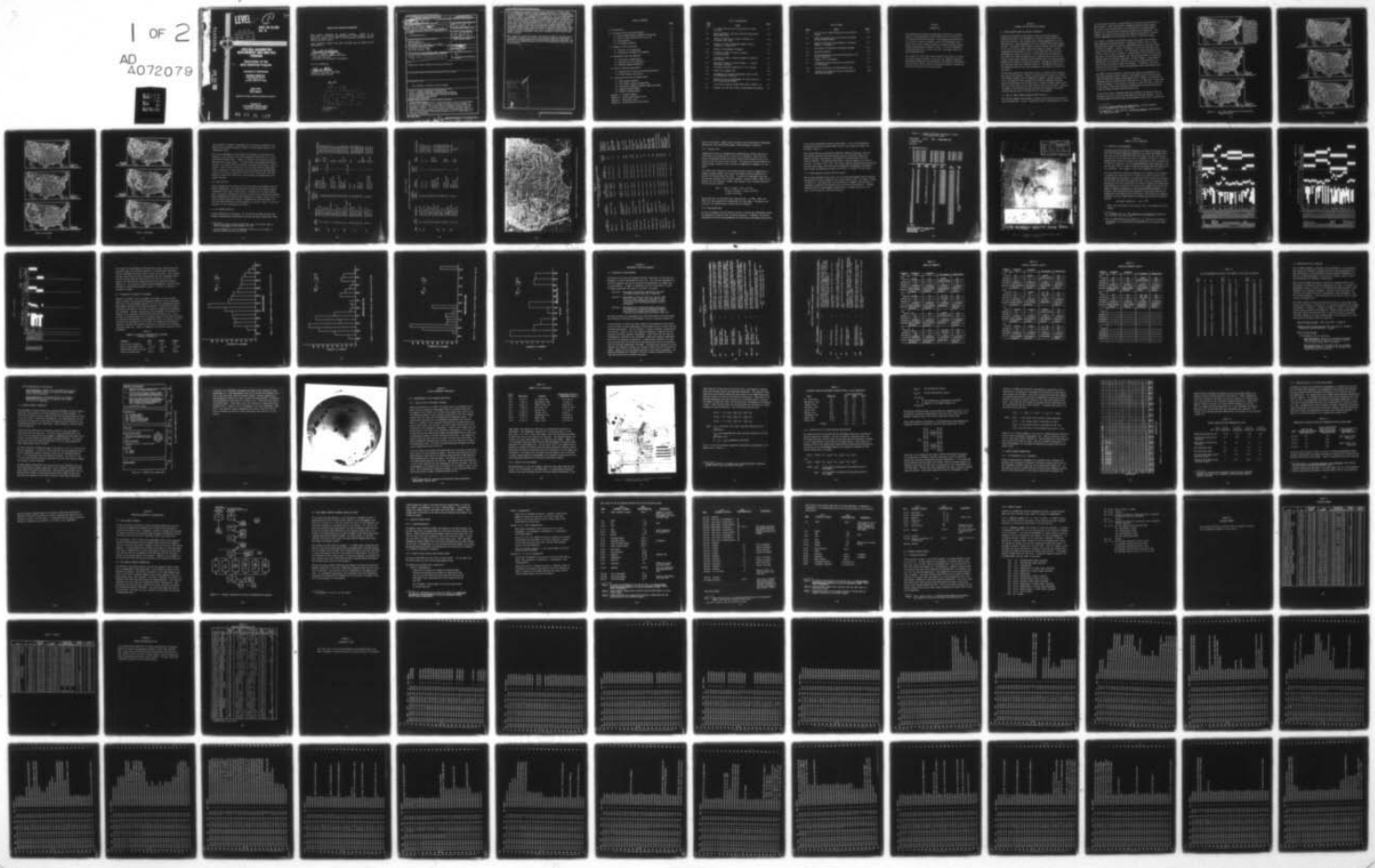

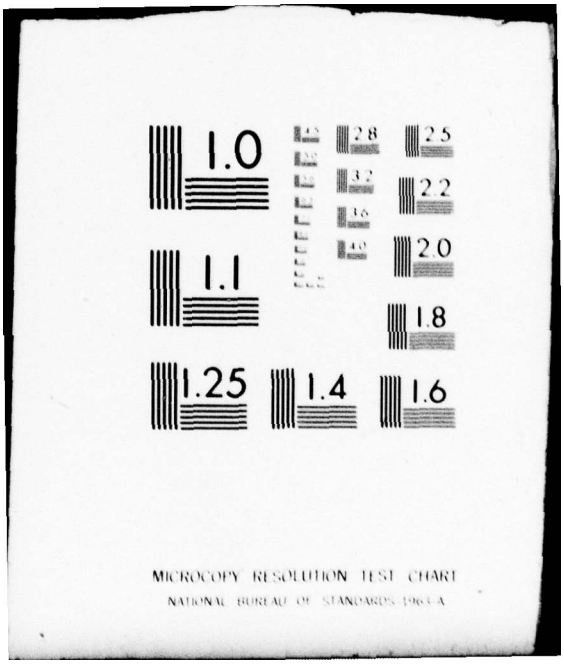
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LEVEL III

AWS/TN-79/001
Vol. II

SPECTRAL RADIOMETRIC MEASUREMENT AND ANALYSIS PROGRAM

Description of the Data Collection Program

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April 1979
Final Report

Approved for Public Release; Distribution Unlimited

Prepared for
AIR WEATHER SERVICE (MAC)
Scott AFB, Illinois 62225

REVIEW AND APPROVAL STATEMENT

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SURFACE METEOROLOGY AND ATMOSPHERIC RADIOMETRIC TRANSFER
IN SITU ATMOSPHERIC MEASUREMENTS
GROUND-BASED RADIOMETRY

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

This report covers a ~~Eastman Kodak Company~~ recently completed contract with the United States Air Force Air Weather Service to conduct research into the transfer of atmospheric energy in the visible and near-infrared portions of the electromagnetic spectrum. Its objective was to produce a spectral model of path transmittance, radiance, and ground-level irradiance that could be related to meteorological observations through the use of simultaneous, in-situ data collections.

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The instrumentation package developed under subcontract to Eastman Kodak by the Albuquerque Division of EG&G ~~(see Vol 1)~~ was used in a 14-month data-collection program. The program had two objectives: (1) To collect spectral radiometric data on the atmosphere and on ground-level surface irradiance under the broadest possible range of climatic/meteorological conditions, and (2) to collect radiometric and meteorological data in such a way that would permit them to be related mathematically. In this field collection portion of the task, data was obtained for 18 different climatic conditions. The collection program, which lasted 18 months and covered 22,000 miles of the continental United States, required extensive coordination with other organizations to establish acceptable test sites, accumulate correlated data, and conduct concurrent experiments with other researchers in the field of atmospheric sciences.

This volume (2) of the final report describes the design of the data collection program conducted in the field, the ranges of important experimental parameters, the measurements and supportive observations that were made, and the analytical software developed to perform the statistical analyses on the resulting data.

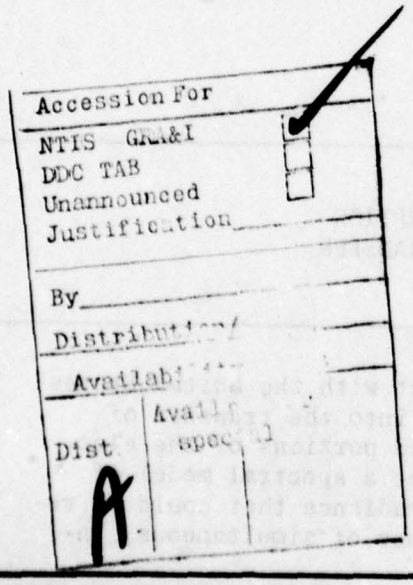

TABLE OF CONTENTS

		Page
1.0	Introduction	1-1
2.0	Itinerary of the Collection Program	2-1
	2.1 Route Planning Based on Regional Climatology	2-1
	2.2 The U.S. Army Classification of the U.S.	2-1
	2.3 Base Logistics	2-7
	2.4 Air Weather Logistics	2-7
3.0	Summary of Data Collections	3-1
	3.1 Overview of the Experiment	3-1
	3.2 Distribution of Samples by Parameter	3-5
4.0	Measurement Types and Sequences	4-1
	4.1 Description of Measurements	4-1
	4.2 Description of Daily Operation	4-8
	4.3 Operator Comment Information	4-9
5.0	Special Concurrent Experiments	5-1
	5.1 Determination of the Site Surround Reflectance	5-1
	5.2 Surface Aerosol Observations	5-7
6.0	Storage and Retrieval of Computer Data	6-1
	6.1 Data Transfer Software	6-1
	6.2 Data General Computer Program STDG	6-1
	6.3 Data General Computer Programs TAPDSK and STIBM1.	6-3
	6.4 Computer Program STOVAN	6-4
	6.5 Computer Program EXTRACT	6-9
Appendix A:	Parameter Summary	A-1
Appendix B:	Surface Meteorological Data	B-1
Appendix C:	Measurement Index	C-1
Appendix D:	Surround Spectral Reflectances	D-1

LIST OF ILLUSTRATIONS

Figure No.	Title	Page
2-1	U.S. Army Classification of United States Climate by Months	2-3
2-2	Mobile Radiometric Laboratory Route and Anticipated Measurement Sites	2-10
2-3	Example of RAOB Data for Denver, Colorado, on 21 October 1975, 1800Z	2-14
2-4	Example of Visible Band METSAT Imagery; Denver, Colorado; 21 October 1975	2-15
3-1	Summary of Experimental Parameters	3-2
3-2	Histogram of Number of Spectral Samples by Solar Altitude	3-6
3-3	Histogram of Number of Spectral Samples by Moisture Scale Height	3-7
3-4	Histogram of Number of Spectral Samples by Terrain Reflectance (650 nm)	3-8
3-5	Histogram of Spectral Samples by Terrain Altitude	3-9
4-1	Header Block Comment Data	4-10
4-2	Enlargement of "Fish-Eye" Photography Taken at Each Site During Data Collection	4-12
5-1	Example of Color U-2 Photography of a Data Collection Site Including CORN Targets	5-3
5-2	Local Terrain Spectral Albedo Reflectance, Alameda, Cal.	5-8
6-1	Schematic Showing Flow of Data in Preparation for Analysis	6-2

LIST OF TABLES

Table	Title	Page
2-1	List of Sites by Month Planned for the Collection Program	2-8
2-2	Actual Sites Used in the Data Collection Program (Project SENIOR VICTOR)	2-11
3-1	Summary of Statistics Corresponding to Histogram Figures 3-2 through 3-5	3-5
4-1	Description of Radiometric Measurement Program	4-2
4-2	Operating Sequences	4-4
4-3	Sky Map Measurement Elevations and Azimuths in the Order of Operation	4-7
5-1	Summary of U-2 Overflights	5-2
5-2	Integrated Terrain Reflectances Estimated from U-2 Photography	5-5
5-3	Aerosol Observations and Meteorological Data	5-9
5-4	Comparison of Normalized Particle Concentration Data and AFCRL Model	5-10

SECTION I

INTRODUCTION

The instrumentation package developed under subcontract to Eastman Kodak by the Albuquerque Division of EG&G (see Vol 1) was used in a 14-month data-collection program. The program had two objectives: (1) To collect spectral radiometric data on the atmosphere and on ground-level surface irradiance under the broadest possible range of climatic/meteorological conditions, and (2) to collect radiometric and meteorological data in such a way that would permit them to be related mathematically.

This volume (2) of the final report describes the design of the data collection program conducted in the field, the ranges of important experimental parameters, the measurements and supportive observations that were made, and the analytical software developed to perform the statistical analyses on the resulting data.

SECTION 2

ITINERARY FOR THE COLLECTION PROGRAM

2.1 ROUTE PLANNING BASED ON REGIONAL CLIMATOLOGY

To make spectroradiometric measurements under all the meteorological conditions that were to be mathematically modeled required careful planing of the itinerary. Data collection was limited geographically to the continental U.S., and measurements had to be completed within approximately one year. Fortunately, quite diverse climatic conditions could be sampled in the U.S. by means of proper timing with respect to seasons. Several climatological descriptions of the U.S. were found that were utilized in developing the collection itinerary. These descriptions indicated that the climate over large contiguous areas is somewhat similar, and that the climate in even widely separated areas sometimes shows like characteristics. Because nature displays no sharp distinctions, overlapping characteristics and transition zones were frequently observed. Although the positions of the transition zones are not fixed permanently, they tend to be relatively stationary.

The two basic methods for classifying climate, the empiric and the genetic, were used on this project. Empiric classifications are based on (1) observable climatic elements such as temperature, humidity, and precipitation, and on (2) the effects of these elements in the form of vegetation zonation. Genetic classification, on the other hand, is based on dynamic weather forces such as air mass type, and its origin and the nature of its motion. Although the empiric classification was used to develop the itinerary, the genetic classification was used to describe the air system sampled.

2.2 THE U.S. ARMY CLIMATIC CLASSIFICATION OF THE U.S.

The two most commonly used elements in empiric classifications are precipitation and temperature. However, temperature alone is unsatisfactory as a basis

for classification because it would provide no distinction between humid and desert regions. Mean precipitation, although an equally natural element for climatic zone classification, is not necessarily an accurate measure because of the implications of seasonal distribution and evaporation. For example, the amount of precipitation that produces high humidity conditions in cold temperatures may well produce dry deserts in tropical climates.

As a result, a climate classification system to be useful, must consider both temperature and precipitation. According to Visher,[1] the U.S. Army developed such a method in 1943 that distinguished twelve zones with respect to these two elements. Figures 2-1A through 2-1L show the locations of the zones for each month of the year. For this project, data was obtained from as many of the 12 zones as possible. Although many of the zones exist at the same time, the areas they encompass vary, and as stated above, the transition boundary cannot be accurately predicted. For this reason, it was planned to acquire data in a particular zone when that zone was large and from a site that did not lie too near a transition boundary. In addition, the travel route was laid out with the idea of minimizing the travel time between acquisition sites of the zones.

The number of days allocated to each site was based on the probability of obtaining acceptable weather during the anticipated period of visit as indicated in publications giving climatological data.[2] Weather was classified as acceptable when sky conditions were from clear to 0.3 cloud cover. Rather than "chase the weather," it was decided in advance to limit the stay at each site to the number of days that had been allocated whether the particular meteorological/climatic condition had prevailed or not.

By using the monthly climatology maps and estimating the number of days required at each site, a map of the desirable locations was prepared. The use of similar maps of military bases and Rawindsonde launch sites as overlays for

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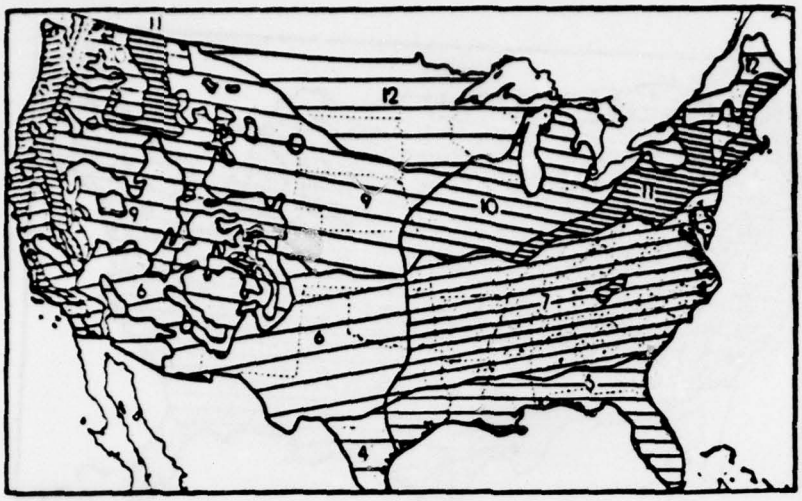
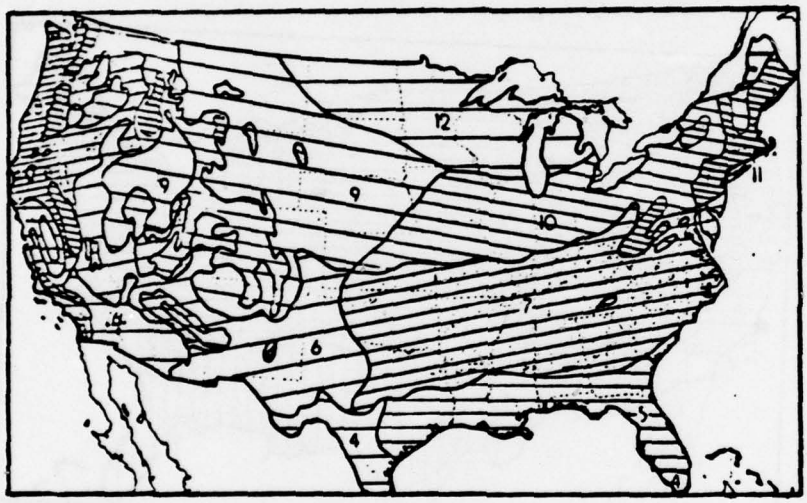
[1] S. Visher, Climatic Atlas of the United States, Harvard University Press, Cambridge, Mass, 1954, pp 373-376.

[2] H. Conway and L. Liston (Editors), The Weather Handbook, Conway Research Inc, Atlanta, Ga, 1974.



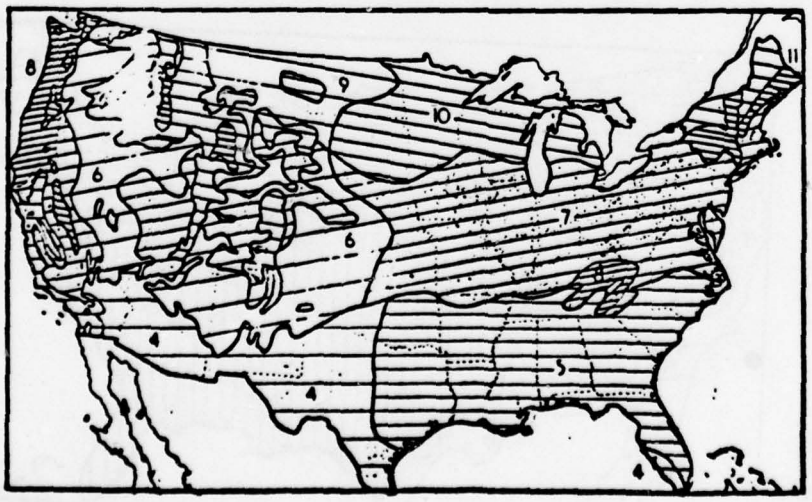
A

Climatic zones in January (Army classification of 1943): 1, very hot, dry (temperature over 86°F, precipitation less than 4 in.); 2, hot, dry (68°–86°, less than 3 in.); 3, hot, humid (68°–86°, over 3 in.); 4, warm, dry (50°–68°, less than 2 in.); 5, warm, humid (50°–68°, 2–8 in.); 6, mild, dry (32°–50°, less than 1 in.); 7, mild, humid (32°–50°, 1–5 in.); 8, mild, wet (32°–50°, over 5 in.); 9, cold, dry (14°–32°, less than 1 in.); 10, cold, humid (14°–32°, 1–3 in.); 11, cold, wet (14°–32°, over 3 in.); 12, very cold (below 14°).



B

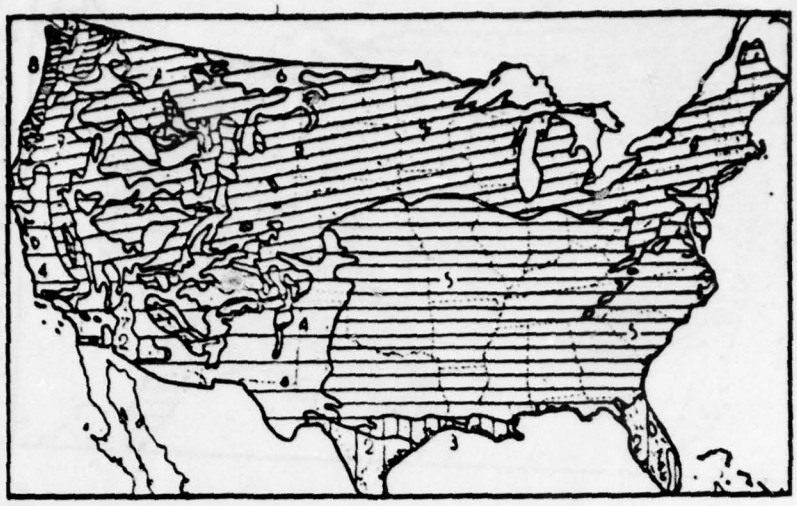
Climatic zones in February (Army classification).



C

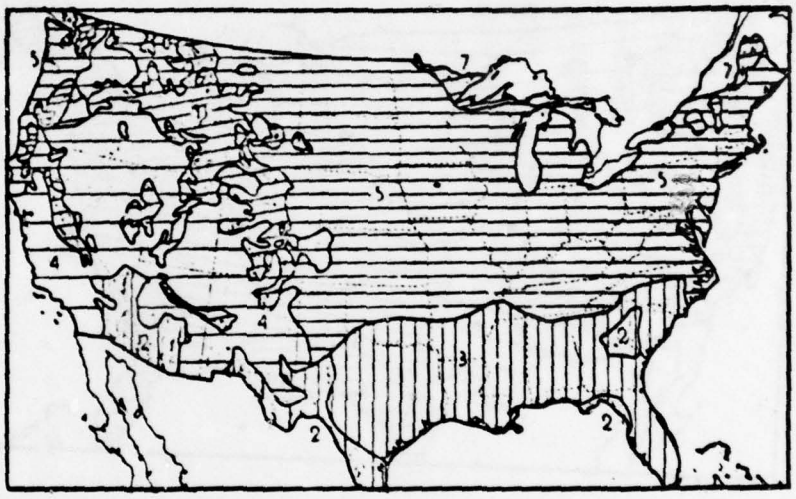
Climatic zones in March (Army classification).

Figure 2-1. U.S. Army Classification of United States Climate by Months



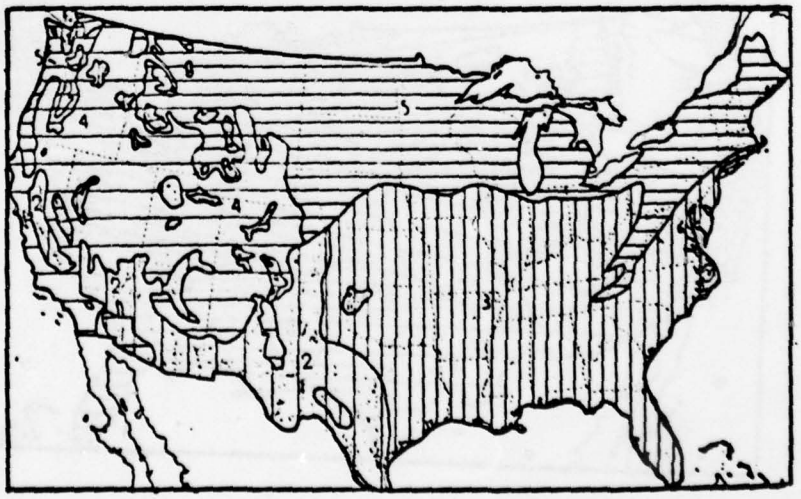
D

Climatic zones in April (Army classification).



E

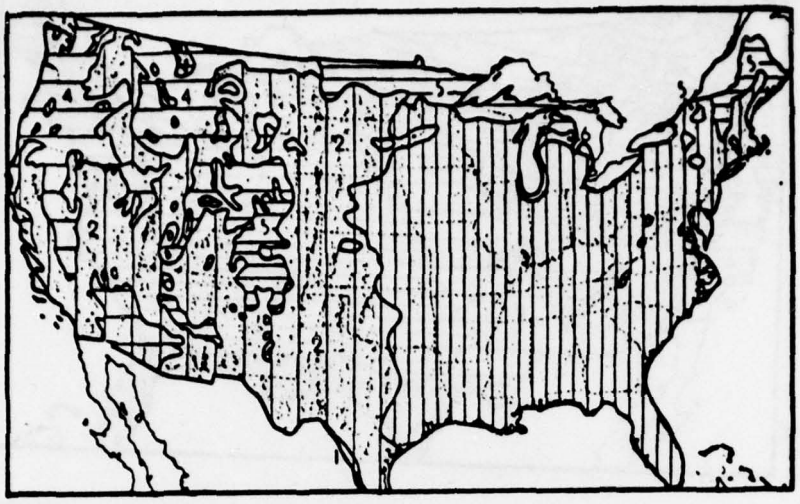
Climatic zones in May (Army classification).



F

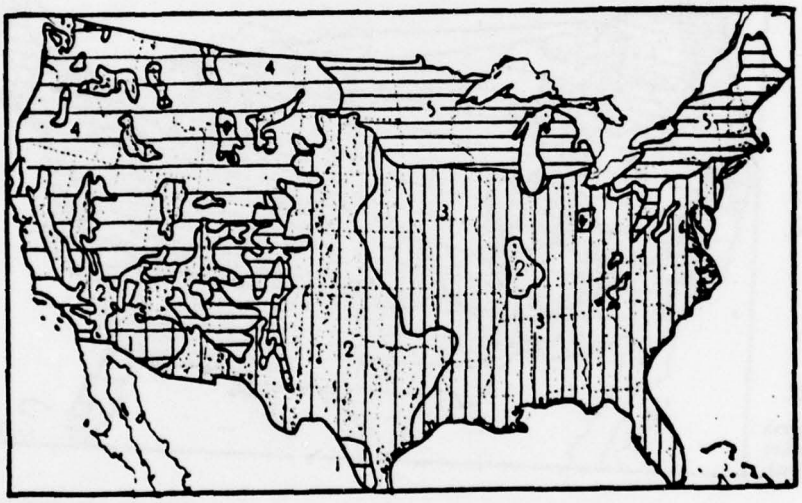
Climatic zones in June (Army classification).

Figure 2 (Continued)



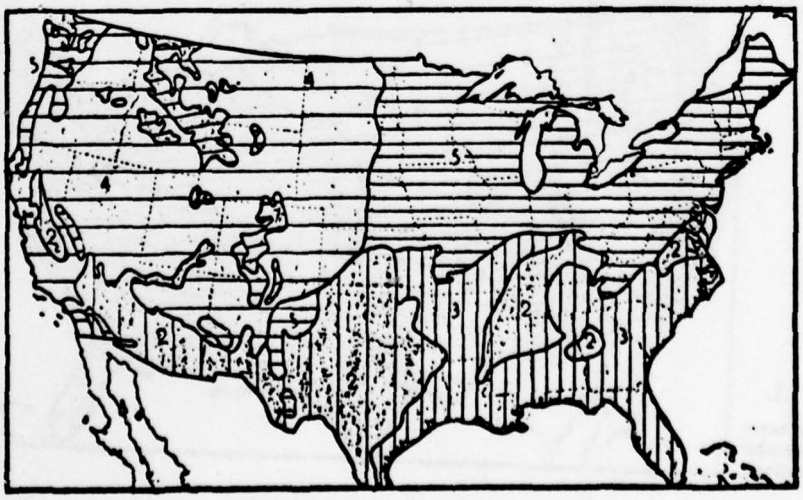
G

Climatic zones in July (Army classification).



H

Climatic zones in August (Army classification).

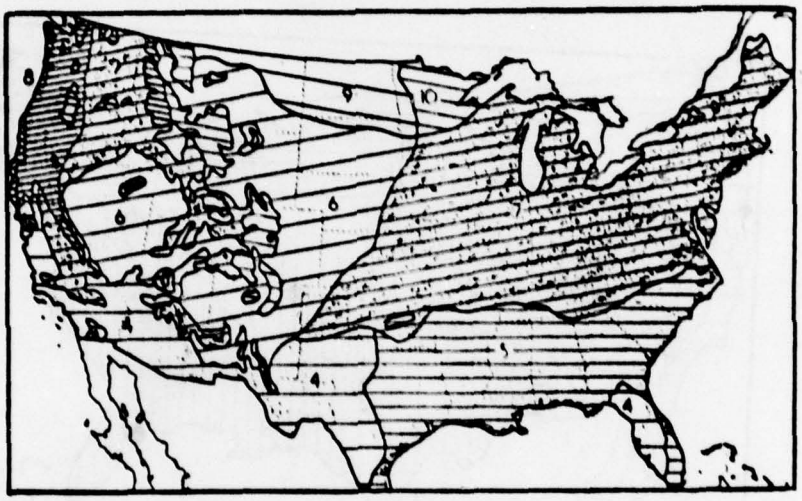


I

Climatic zones in September (Army classification).

Figure 2 (Continued)

J
Climatic zones in October (Army classification).



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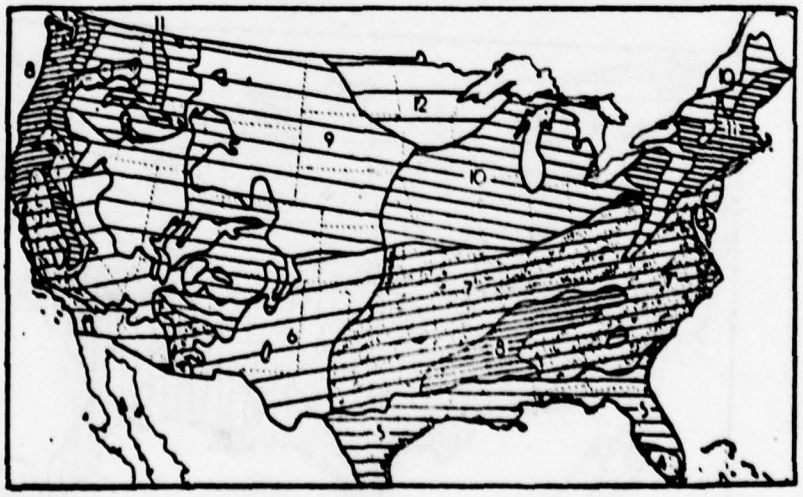
Climatic zones in November (Army classification).



L
Climatic zones in December (Army classification).

Figure 2 (Continued)

this map made it possible to determine the final group of potential sites. These sites are listed by month in Table 2-1 in the order dictated by the climological study.

Due to the requirement to obtain upper air soundings at each acquisition location, it was necessary to set the equipment up within 25 n. mi. of the national RAOB launch sites.[3] Figure 2-2 indicates the locations of these facilities by attached labels. To satisfy power requirements and physical security, the primary sites were located at military installations[4] wherever possible. Many of these turned out to be coincident with the RAOB launch sites. Because go or no-go conditions for data acquisition and hence RAOB launches were often not known until shortly before launch time, the setups adjacent to RAOB sites facilitated decision making and communication with weather personnel.

2.3 BASE LOGISTICS

Overall coordination for setup of sites at the bases was provided by the AIR Systems Command/LGYJ. Each potential data collection site required advance arrangements with respect to base entry, a suitable site for trailer-setup, power, sleeping and eating facilities for a two-man crew, and physical security. These arrangements were made by LGYJ personnel by telephone, and Air Force contractor travel orders were provided. Throughout the collection phase, the code name SENIOR VICTOR was used to identify this project. Table 2-2 lists the locations of sites used during this project.

2.4 AIR WEATHER LOGISTICS

Of major importance to the project was the ability to obtain accurate and frequent meteorological observations at or near the base of operations. These

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[3] NDAA Weather Service Offices and Stations, Jan 1975, and U.S. Dept of Commerce RAOB-RAWIN Altitude Summary, Dec 1974.

[4] Air Force Magazine, "Air Force Magazine's Guide to U.S.A.F. Bases at Home and Abroad", May 1975, pp 142-154.

TABLE 2-1

LIST OF SITES BY MONTH PLANNED FOR THE COLLECTION PROGRAM

Month	Site I.D. No.	RAOB Station	Distance From Previous Site (Miles)	Closest Military Base	Probable Number of Days On Site	Base Command	Latitude/Longitude
June	1	Albuquerque, N.M.	-	Kirtland AFB	5	AFSC	3503N/10636W
	2A	Yucca Flat, Nev.	500	Mercury, Nev.	4	-	3657N/11602W
	3	Tucson, Ariz.	400	Davis-Monthan AFB	4	TAC,SAC	3210N/11053W
	4	El Paso, Texas	300	Biggs AFB	4	SAC,TAC	3151N/10623W
	47A	Winslow, Ariz.	N.D.	-	Not determined	-	3501N/11041W
July	5	Midland, Texas	300	-	5	-	3156N/10212W
	6	Little Rock, Arkansas	600	Little Rock AFB	6	SAC	3455N/9209W
	7	Athens, Ga.	550	Supply Corp. School	7	Navy	3357N/8320W
Aug.	8	Tampa, Fla.	450	McDill AFB	7	TAC	2751N/8231W
	9A	Apalachicola, Fla.	350	-	9	-	2944N/8502W
	10A	Victoria, Tex.	650	Beeville Air Station	6	Navy	2851N/9655W
	11	Del Rio, Tex.	250	Laughlin AFB	6	ATC	2922N/10047W
	12	El Paso, Tex.	400	Biggs AFB	4	SAC,TAC	3151N/10623W
Sept.	13	Albuquerque, N.M.	250	Kirkland AFB	5	AFSC	3503N/10636W
	14	Grand Junction, Colorado	400	-	Not determined	-	3903N/10847W
	15A	Salt Lake City, Utah	300	Hill AFB	5	AFLC	4047N/11158W
	16	Winnemucca, Nev.	300	-	5	-	4054N/11748W
	17A	Yucca Flat, Nev.	500	Mercury	-	-	3657N/11602W
Oct	18	Lander, Wyo.	800	-	6	-	4249N/10844W
	19	Denver, Col.	400	Lowry AFB	6	ATC	3946N/10453W
	20	Oklahoma City, Okl.	600	Tinker AFB	-	N.D.	3525N/9723W
	21A	Scott AFB, Ill.	650	Scott AFB	6	MAC, AWS, MATS	3833N/8951W
	22	Huntington, Ky.	350	-	7	-	3822N/8232W
Nov.	23A	Dulles A/P, Va.	400	Vint Hill Army Depot	7	Army	3847N/7741W
	24	Dayton, Ohio	400	Wright-Patterson AFB	12	AFLC,AFSC	2950N/8403W
	25	Omaha, Neb.	650	Offut AFB	7	SAC	4107N/9555W

TABLE 2-1 CONT'D.

LIST OF SITES BY MONTH PLANNED FOR THE COLLECTION PROGRAM

Month	Site I.D. No.	RAOB Station	Distance From Previous Site (Miles)	Closest Military Base	Probable Number of Days On Site	Base Command	Latitude/Longitude
Dec.	26	No. Platte, Neb.	250	-	7	-	4103N/10045W
	27	Denver, Col.	250	Lowry AFB	6	ATC	3946N/10453W
Jan.	28	No. Platte, Neb.	250	-	9	-	4103N/10045W
	29	Omaha, Neb.	250	Offut AFB	9	SAC	4107N/9555W
	30	St. Cloud, Minn.	400	-	9	-	4533N/9404W
	31	Bismark, N.D.	300	-	9	-	4647N/10045W
	32	Glasgow, Mont.	300	Glasgow AFB	12	SAC,ADC	-
	33	Great Falls, Mont.	250	Malstrom AFB	12	SAC,ADC	4730N/11111W
	34	Spokane, Wash.	350	Fairchild AFB	16	SAC	4737N/11732W
Mar.	35A	Quillayute, Wash.	250	Quillayute, Wash.	16	-	4658N/12356W
	36	Salem, Ore.	150	-	16	-	4455N/12300W
	37	Medford, Ore.	200	-	12	-	4222N/12252W
Apr.	38	Chico, Cal.	200	Beale AFB	9	SAC	3948N/12151W
	39A	Oakland, Cal.	150	Alameda Air Station	6	AFRES	3743N/12213W
	40	Vandenberg AFB, Lompoc, Cal.	250	Vandenberg AFB	6	SAC	3443N/12034W
May	41	Los Angeles (LAX)	150	SAMSO	7	-	3357N/11824W
	42	Edwards AFB	100	Edwards AFB	5	AFSC	N.D.
	43	Oakland, Cal.	300	Hamilton AFB	6	AFRES	N.D.
	45	San Diego, Cal.	-	Naval Air Station	N.D.	-	N.D.

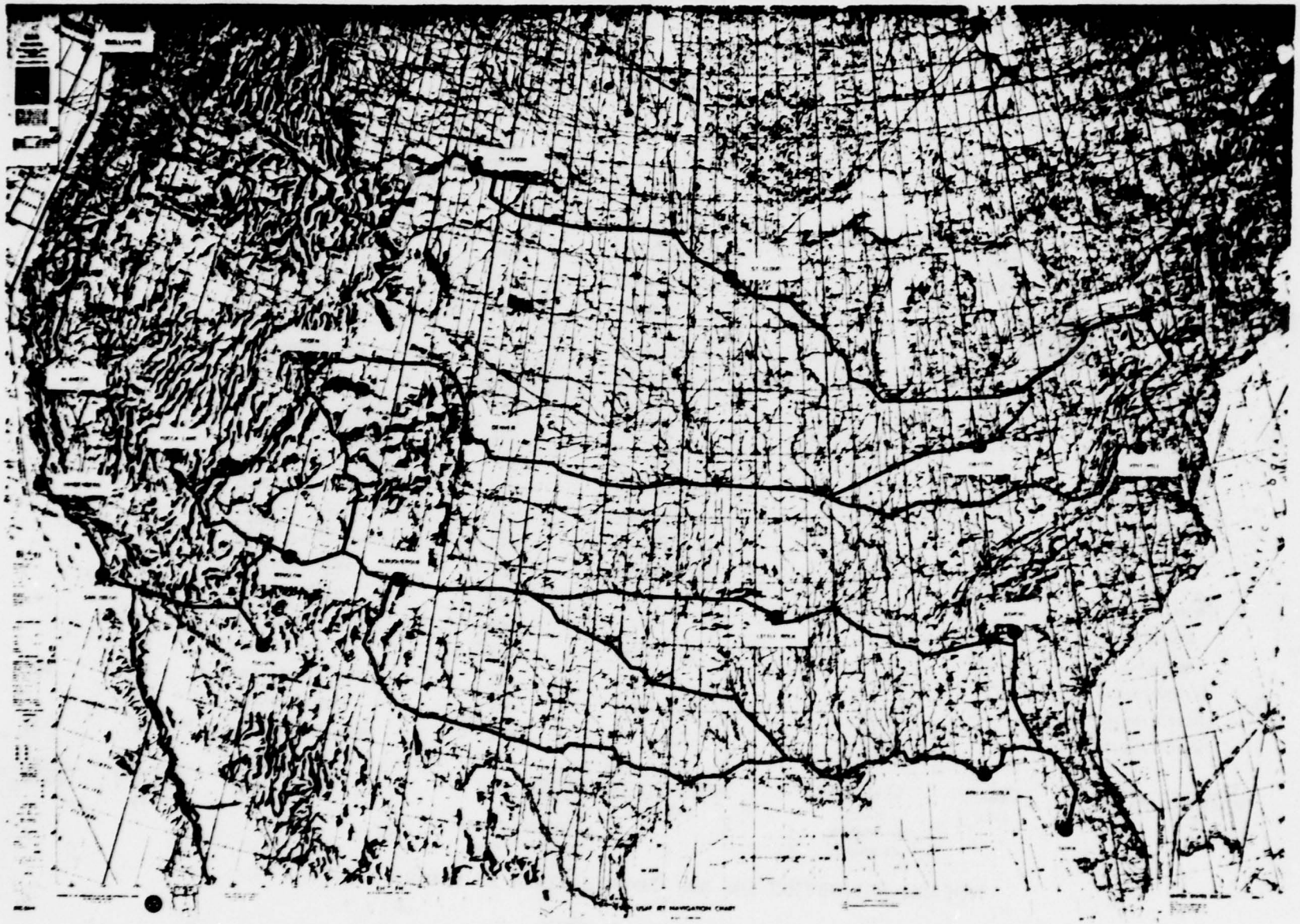


Figure 2-2. Mobile Radiometric Laboratory Route and Anticipated Measurement Sites

TABLE 2-2

ACTUAL SITES USED IN THE DATA COLLECTION PROGRAM
(Project SENIOR VICTOR)

Site	Location	Dates	Lat/Long	Elevation (Ft.)	Weather Station (RAOB)
Little Rock, Ark.	Little Rock AFB	31 Jul 75 - 07 Aug 75 09 Jul 76 - 24 Jul 76	34° 55' N/92° 09' W	311'	NWS Sta #72340 Little Rock
Athens, Ga.	Athens Mun. Airport	11 Aug 75 - 14 Aug 75 26 Jul 76 - 14 Aug 76	33° 57' N/83° 19' W	811'	NWS Sta #72311 Athens
Tampa, Fla.	McDill AFB	16 Aug 75 - 21 Aug 75	27° 51' N/82° 31' W	20'	AWS (1 WS, 5WW) NWS Sta #72210 Ruskin
Apalachicola, Fla.	Aviation Test Board Ft. Rucker Test Facility	26 Aug 75 - 28 Aug 75 16 Aug 76 - 31 Aug 76	29° 44' N/85° 02' W	20'	NWS Sta #72220 Apalachicola
Yucca Lake, Nev.	Mercury Station	27 Sep 75 - 29 Sep 75	36° 57' N/116° 02' W	3924'	NWS Sta #72385
Denver, Col.	Lowry AFB	07 Oct 75 - 23 Oct 75	39° 43' N/104° 50' W	5400'	NWS Sta #72469 Denver
Vint Hill, Va.	Vint Hill Army Depot	31 Oct 75 - 12 Nov 75	38° 47' N/77° 41' W	420'	NWS Sta #72403
St. Cloud, Minn.	NWS Station	05 Feb 76 - 01 Mar 76	45° 33' N/94° 04' W	1028'	NWS Sta #726550 St. Cloud
Glasgow, Mont.	Glasgow Mun. Airport	03 Mar 76 - 06 Mar 76	48° 13' N/106° 37' W	2279'	NWS Sta #72780 Glasgow
Quillayute, Wash.	Quillayute Mun. Airport	16 Mar 76 - 10 Apr 76	47° 57' N/124° 33' W	181'	NWS Sta #727970 Quillayute
Alameda, Calif.	Alameda Naval Air Station	12 Apr 76 - 27 Apr 76	37° 47' N/122° 19' W	15'	NWS Sta #724930 Oakland
Vandenberg, Calif.	Vandenberg AFB	29 Apr 76 - 14 May 76	34° 45' N/120° 34' W	327'	AWS Det 302 WEA NWS Sta #723930
San Diego, Calif.	Montgomery Field	17 May 76 - 01 Jun 76	32° 49' N/117° 08' W	408'	NWS Sta #722900 Montgomery Field
Tucson, Ariz.	Davis-Monthan AFB	03 Jun 76 - 20 Jun 76	32° 11' N/110° 52' W	2705'	NWS Sta #722740 Tucson
Winslow, Ariz.	NWS Station	22 Jun 76 - 07 Jul 76	35° 01' N/110° 41' W	4895'	NWS Sta #723740 Winslow
Albuquerque, N.M.	Kirkland AFB	06 Sep 76 - 20 Sep 76	35° 02' N/106° 34' W	5263'	NWS Sta #723650 Albuquerque
Ogden, Utah	Hill AFB	22 Sep 76 - 08 Oct 76	41° 07' N/111° 58' W	4788	AWS Det 6, 15 WS NWS Sta #725720 Salt Lake City
Dayton, Ohio	Wright-Patterson AFB	14 Oct 76 - 13 Nov 76	39° 47' N/84° 05' W	970	NWS Sta #724290 Dayton

were of three types: normal synoptic surface weather observations, Rawindsonde observations, and reconstructed imagery from meteological satellites.

2.4.1 Synoptic Data.

Although the trailer was equipped with a meteorological system, data was obtained from the weather service at each site of operation. When there was serious disagreement between the trailer system and the weather service, the latter was the one used in data analyses. The surface observations made by the trailer weather system for each site-day are summarized in Appendix A of this report.

The surface data collected by the on-board weather system was summarized by a computer program, SUNSHE, that plotted and computed various parameters as a function of Greenwich Mean Time (GMT). To provide an unambiguous time base, GMT was used throughout the collection program. Relative humidity (RH) and temperature (T) were reduced to surface vapor pressure (VP) by substituting them in the following equation:

$$\begin{aligned} VP(t) = {} & RH(t) \times [1.186 + 4.514 \times 10^{-2} T(t) \\ & + 3.921 \times 10^{-3} T^2(t) - 3.456 \times 10^{-5} T^3(t) \\ & + 5.548 \times 10^{-7} T^4(t)] \end{aligned}$$

Rawindsonde data was available three times each day: at 1200Z, 1800Z, and 2400Z; and vapor pressure was interpolated for these times. The pressure and wind data were reported over the entire day of collection.

2.4.2 Rawindsonde Data

By prior arrangement with the weather service, one additional Rawindsonde balloon was launched at mid-day on days of trailer operation. In general, the on-site coordination for these was performed by the field crews with advance notification

of the launch requirement arranged through AFAWS. A list of the Rawindsonde Atmospheric Observation Balloon (RAOB) stations used during this project can be found in Table 2-2.

RAOB station data was transmitted to AFAWS for computer processing. The data when finally received listed precipitable moisture, wind data, temperature, humidity, density, and pressure, as a function of altitude above the local station elevation. An example of these data is shown in Figure 2-3 for Denver, Colorado, 21 October 1975 at 1800Z. The surface pressure and integrated precipitable moisture scale height, which were the key parameters in atmospheric radiometric data scaling, are explained in detail in Section 2 of Volume 3 of this report.

2.4.3 Meteorological Satellite (Metsat) Imagery

AWS also provided paper print copies of the reconstructed imagery from the digital, meteorological satellite signals in the visible spectral band. An example is shown in Figure 2-4. The imagery was used periodically to diagnose cloud patterns or atmospheric conditions for the macro-scale near the site of operation. Although sometimes useful in understanding large patterns of weather, the scale was too small to be of practical value in the project.

Figure 2-3. Example of RAOB Data for Denver, Colorado, on 21 October 1975, 1800Z

POINT ANALYSIS 21 OCT 75 1800Z STATION NUMBER 72469

D. WEATHER AT SITE -

NO SIG WEA

E. PRECIPITABLE WATER (CM) -

SFC - 1M	FT	5.93-02	10M - 12M	FT	2.56-02	40M - 45M	FT	7.02-05
1M - 2M	FT	5.04-02	12M - 14M	FT	2.86-02	45M - 50M	FT	5.43-05
2M - 3M	FT	4.20-02	14M - 16M	FT	2.48-02	50M - 60M	FT	7.74-05
3M - 4M	FT	3.50-02	16M - 18M	FT	1.66-02	60M - 70M	FT	4.03-05
4M - 5M	FT	2.95-02	18M - 20M	FT	4.28-03	70M - 80M	FT	2.69-05
5M - 6M	FT	2.39-02	20M - 25M	FT	2.51-03	80M - 90M	FT	1.63.05
6M - 7M	FT	1.99-02	25M - 30M	FT	3.11-04	90M -100M	FT	1.00-05
7M - 8M	FT	1.63-02	30M - 35M	FT	6.87-05			
8M -10M	FT	2.59-02	35M - 40M	FT	5.68-05			

F. WINDS, TEMPERATURE, ABS HUMIDITY, DENSITY, PRESSURE -

	DIR (DEG)	SPEED (M/SEC)	TEMP (DEG C)	AH (G/M3)	DEN (GM/CM3)	PRESS (MB)
SFC	160.	3.	20.	0.154E+01	9.914-04	835.
1M	252.	1.	18.	0.180E+01	9.636-04	806.
2M	298.	3.	16.	0.151E+01	9.371-04	777.
3M	306.	4.	13.	0.126E+01	9.113-04	750.
4M	311.	4.	11.	0.105E+01	8.860-04	723.
5M	316.	5.	9.	0.863E+00	8.605-04	697.
6M	323.	4.	6.	0.715E+00	8.360-04	671.
7M	324.	4.	4.	0.589E+00	8.118-04	647.
8M	298.	4.	2.	0.484E+00	7.883-04	623.
10M	282.	6.	-2.	0.385E+00	7.402-04	575.
12M	282.	5.	-7.	0.454E+00	6.964-04	532.
14M	265.	7.	-11.	0.490E+00	6.570-04	494.
16M	278.	9.	-16.	0.332E+00	6.182-04	456.
18M	282.	10.	-20.	0.175E+00	5.789-04	420.
20M	278.	10.	-25.	0.315E-01	5.425-04	387.
25M	326.	9.	-38.	0.626E-02	4.616-04	312.
30M	330.	13.	-51.	0.754E-03	3.901-04	248.
35M	334.	14.	-62.	0.280E-03	3.216-04	195.
40M	264.	16.	-61.	0.528E-03	2.517-04	153.
45M	270.	22.	-67.	0.401E-03	2.006-04	119.
50M	277.	16.	-67.	0.312E-03	1.560-04	92.
60M	261.	8.	-59.	0.177E-03	8.903-05	55.
70M	261.	7.	-56.	0.111E-03	5.599-05	35.
80M	257.	5.	-52.	0.672E-04	3.402-05	22.
90M	271.	10.	-45.	0.407E-04	2.076-05	14.
100M	285.	10.	-43.	0.251E-04	1.300-05	9.
120M			-32.		5.239-06	3.74
140M			-15.		2.111-06	1.63
160M			-3.		9.881-07	0.71
180M			-7.		4.625-07	0.31
200M			-16.		2.165-07	0.14
220M			-42.		1.014-07	
240M			-63.		4.098-08	
260M			-80.		1.401-08	
280M			-83.		4.787-09	
300M			-82.		1.176-09	
320M			-73.		4.018-10	
340M			-61.		1.522-10	
360M			-41.		5.768-11	
380M			23.		2.185-11	
400M			109.		8.280-12	

G. REMARKS

ONLY ANALYSIS FIELDS USED IN THIS PROFILE
SURFACE ELEVATION — 5285 FT
RAOB BASE TIME — 1200Z
ZONAL FLOW ALOFT

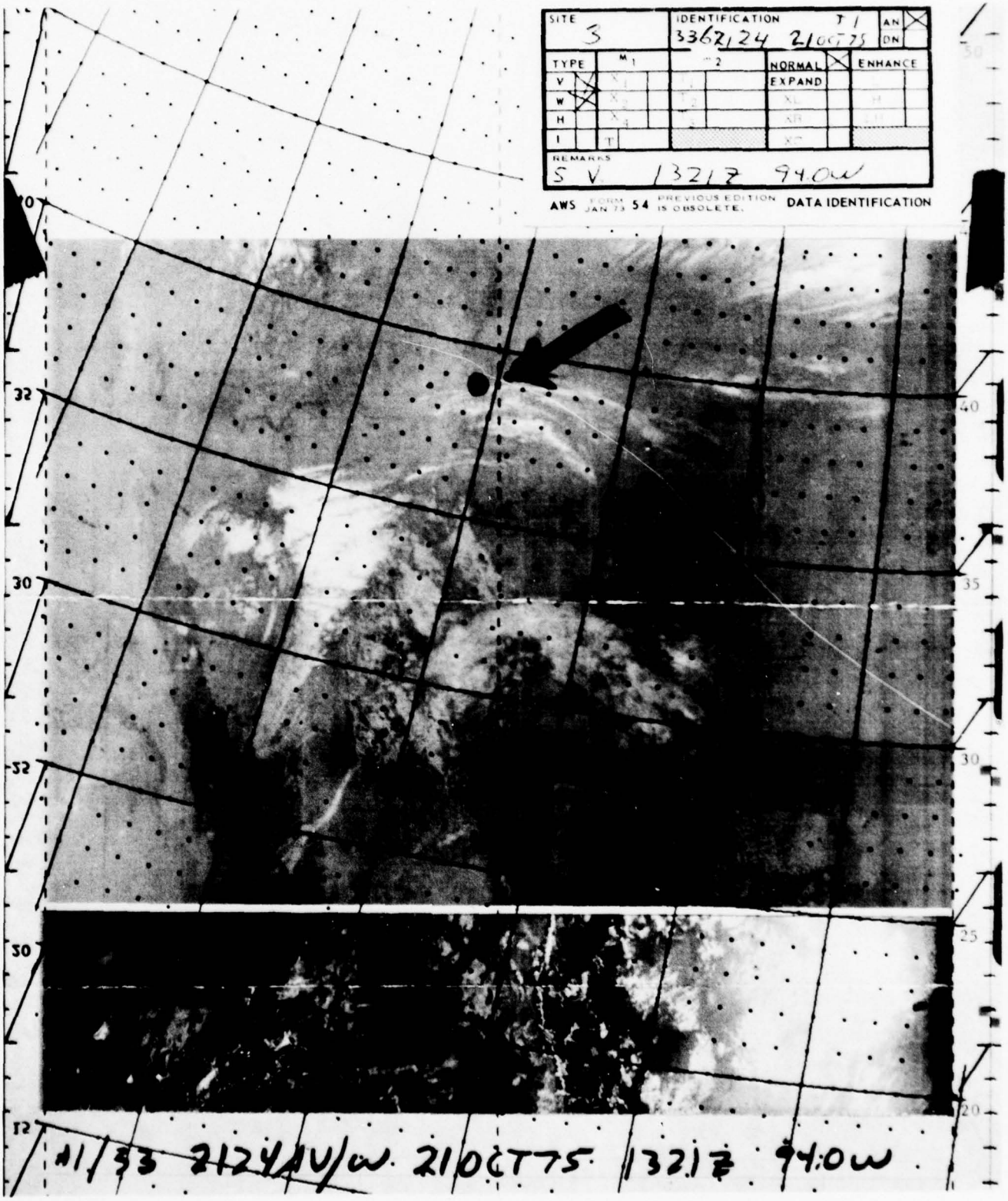


Figure 2-4. Example of Visible Band METSAT Imagery; Denver, Colorado; 21 October 1975

SECTION 3
SUMMARY OF DATA COLLECTIONS

3.1 OVERVIEW OF THE EXPERIMENT

The data collection program was conducted from August 1975 through October 1976, and the mobile laboratory visited 62 sites within the United States. Data collections were made both before and after local true noon so that each day-site could potentially yield two separate collections. As this occurred 27 times during the program, the total number of data collections was 89 (2x27+35). Appendix A of this volume summarizes these collections, listing the exact values or ranges of physical parameters that were important to this experiment. This summary is also shown graphically in Figure 3-1.

The column CONF COEF (confidence coefficients) in Figure 3-1 was developed to separate data collections into (1) those that would be usable in the analysis phase of the project, (2) those that would be usable as test cases, and (3) those that would not be usable at all. Since all radiometric data measurements were made concurrently with spectral transmittance measurements, the coefficient was computed on the basis of the range of air mass and the number of samples corresponding to the transmissometer measurements. Specifically, the coefficient was the product of the air-mass range and the square root of the sample size, as shown below, and reflected the equations associated with the standard error of regression as discussed by Rickmers[5] and Todd.

$$\text{Confidence Coefficient} = \Delta M^{*} \times \sqrt{N}$$

Where, ΔM is the range of the air mass, and N is the number of spectral samples.

---

[5] A. D. Richmers and H. N. Todd, Statistics, an Introduction, McGraw Hill Inc, New York, N.Y, 1967, p.258.

* ΔM is an approximation of the quantity $t_{\alpha}\ \sigma_{y \cdot x}$ discussed in reference 5. In addition, it is assumed that the prediction of y is for the average value of x.

Figure 3-1. Summary of Experimental Parameters

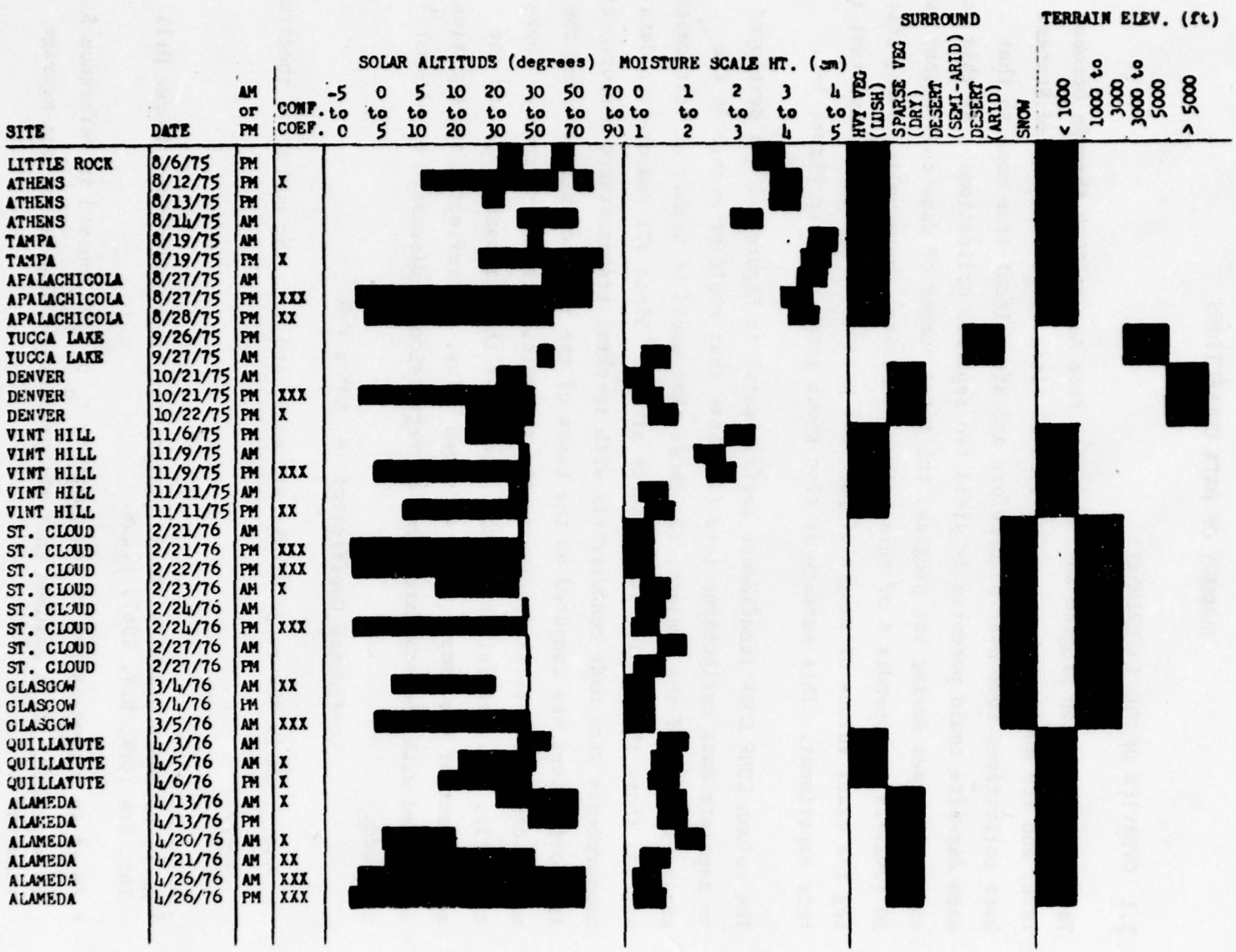
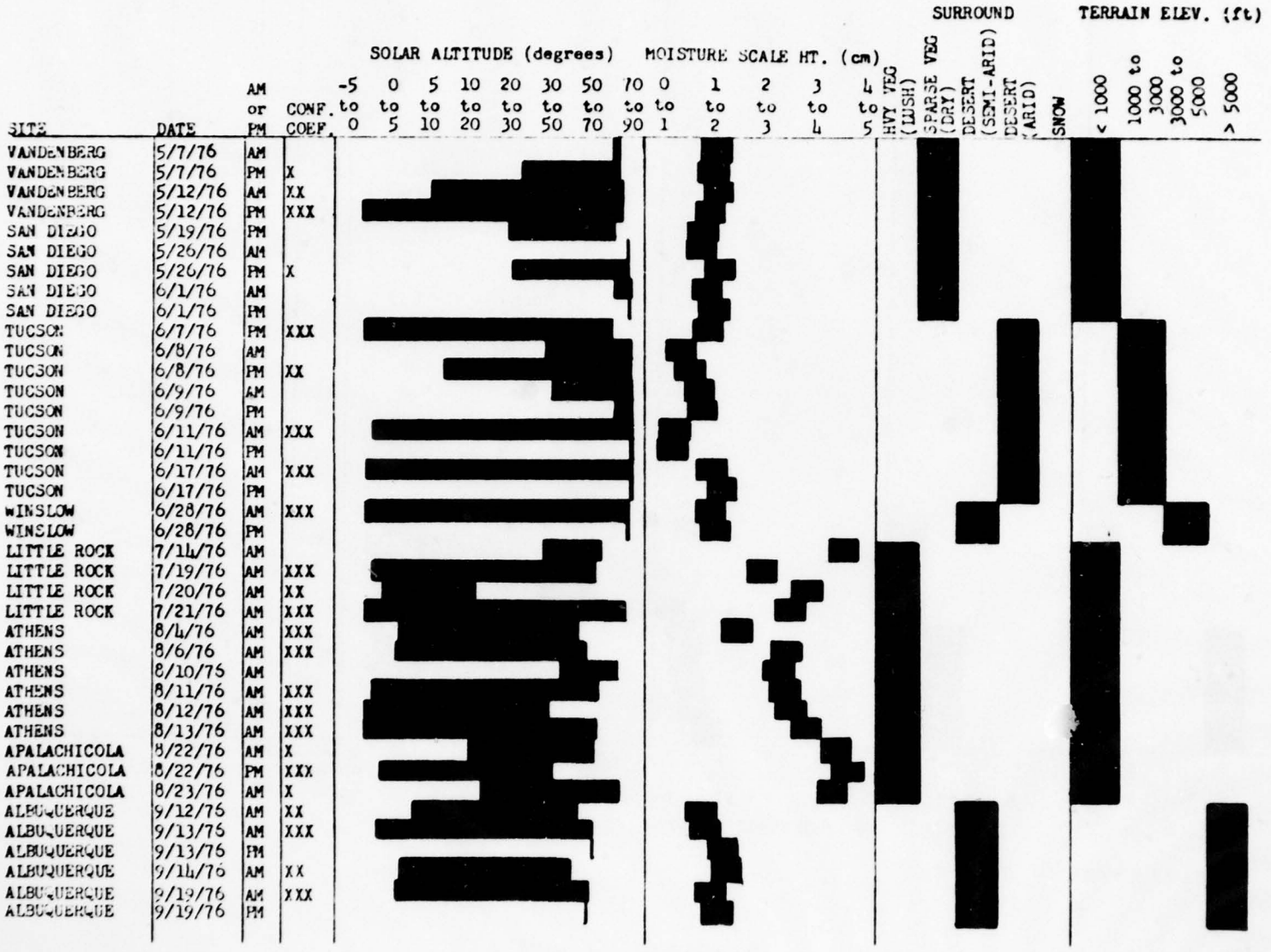
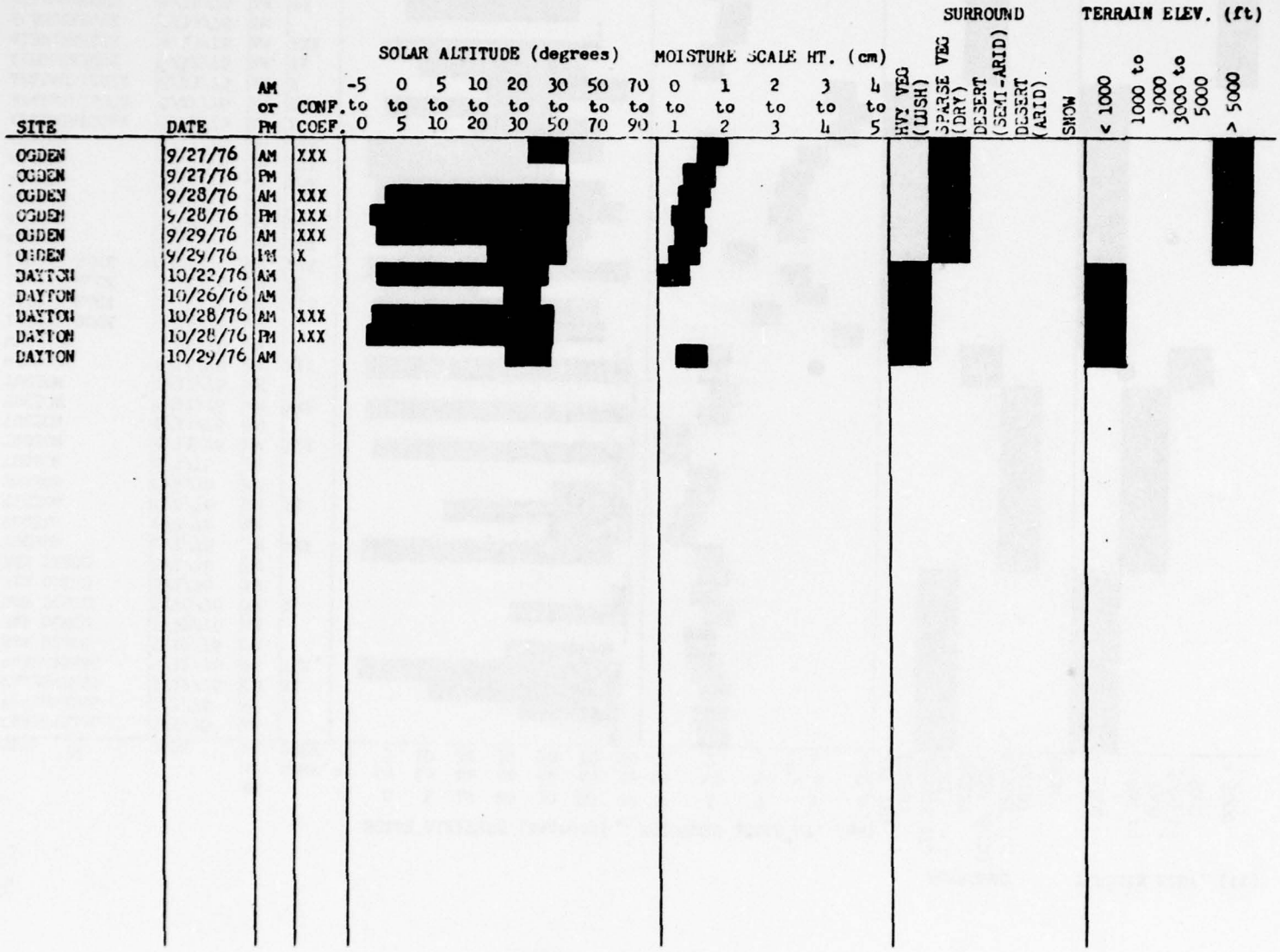


Figure 3-1 (Continued)



SITE	DATE	AM or PM	CONF. COEF.
VANDENBERG	5/7/76	AM	
VANDENBERG	5/7/76	PM	X
VANDENBERG	5/12/76	AM	XX
VANDENBERG	5/12/76	PM	XXX
SAN DIEGO	5/19/76	PM	
SAN DIEGO	5/26/76	AM	
SAN DIEGO	5/26/76	PM	X
SAN DIEGO	6/1/76	AM	
SAN DIEGO	6/1/76	PM	
TUCSON	6/7/76	PM	XXX
TUCSON	6/8/76	AM	
TUCSON	6/8/76	PM	XX
TUCSON	6/9/76	AM	
TUCSON	6/9/76	PM	
TUCSON	6/11/76	AM	XXX
TUCSON	6/11/76	PM	
TUCSON	6/17/76	AM	XXX
TUCSON	6/17/76	PM	
WINSLOW	6/28/76	AM	XXX
WINSLOW	6/28/76	PM	
LITTLE ROCK	7/14/76	AM	
LITTLE ROCK	7/19/76	AM	XXX
LITTLE ROCK	7/20/76	AM	XX
LITTLE ROCK	7/21/76	AM	XXX
ATHENS	8/4/76	AM	XXX
ATHENS	8/6/76	AM	XXX
ATHENS	8/10/76	AM	
ATHENS	8/11/76	AM	XXX
ATHENS	8/12/76	AM	XXX
ATHENS	8/13/76	AM	XXX
APALACHICOLA	8/22/76	AM	X
APALACHICOLA	8/22/76	PM	XXX
APALACHICOLA	8/23/76	AM	X
ALBUQUERQUE	9/12/76	AM	XX
ALBUQUERQUE	9/13/76	AM	XXX
ALBUQUERQUE	9/13/76	PM	
ALBUQUERQUE	9/14/76	AM	XX
ALBUQUERQUE	9/19/76	AM	XXX
ALBUQUERQUE	9/19/76	PM	

Figure 3-1 (Continued)



Four ranges of the confidence coefficient were used to separate data into excellent, good, fair, and poor categories. Of the 89 total collections, 30 were considered excellent, 9 good, 13 fair, and 37 poor. Only excellent and good collections were used in formulating the final atmospheric model; the fair and poor data were only used as test cases or not at all. In general, the fair and poor ratings represented an insufficient range or sample size. They typically resulted from non-homogeneous cloud cover that prematurely terminated measurements; however, a few were the result of instrument failures.

3.2 DISTRIBUTION OF SAMPLES BY PARAMETER

Figures 3-2 through 3-5 are histograms of the number of data collection spectral samples for each physical parameter and for the entire experiment. Each point of the histograms represents a set of four simultaneous spectral measurements from each of four spectroradiometers. Only data sets having confidence coefficients in the good or excellent categories are included in the histograms. Although a good range of the parameters is evidenced, the samples did not represent a uniform collection distribution (e.g., solar altitude is strongly peaked at 30° and skewed toward the high solar altitudes). In formulating the equations of the atmospheric model, this artifact of data collection was compensated for as follows. The equations resulting from regression analysis were adjusted on the basis of examination of systematic sampling of data sets. Table 3-1 summarizes the important statistics of the histograms.

TABLE 3-1

SUMMARY OF STATISTICS CORRESPONDING TO HISTOGRAM FIGURES 3-2 THROUGH 3-5

Parameter	Mean	Lowest	Highest
Solar Altitude (degrees)	36.3°	-1.8°	80.8°
Moisture Scale Height (cm)	1.61 cm	0.22 cm	4.58 cm
Terrain Reflectance (@ 650 nm)	17.6%	4.0%	60.3%
Terrain Altitude (feet)	2127 ft	19 ft	5400 ft

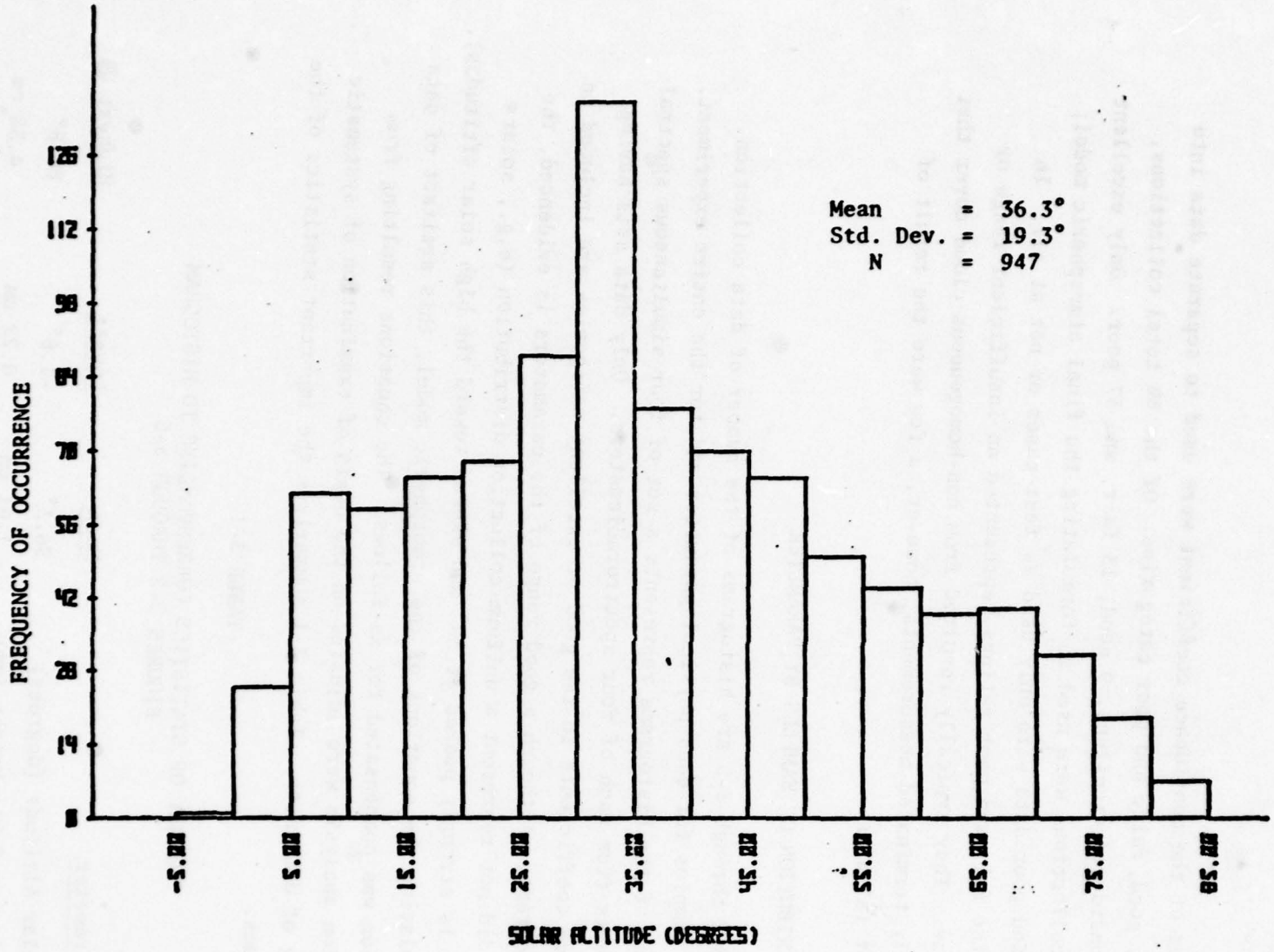


Figure 3-2. Histogram of Number of Spectral Samples by Solar Altitude

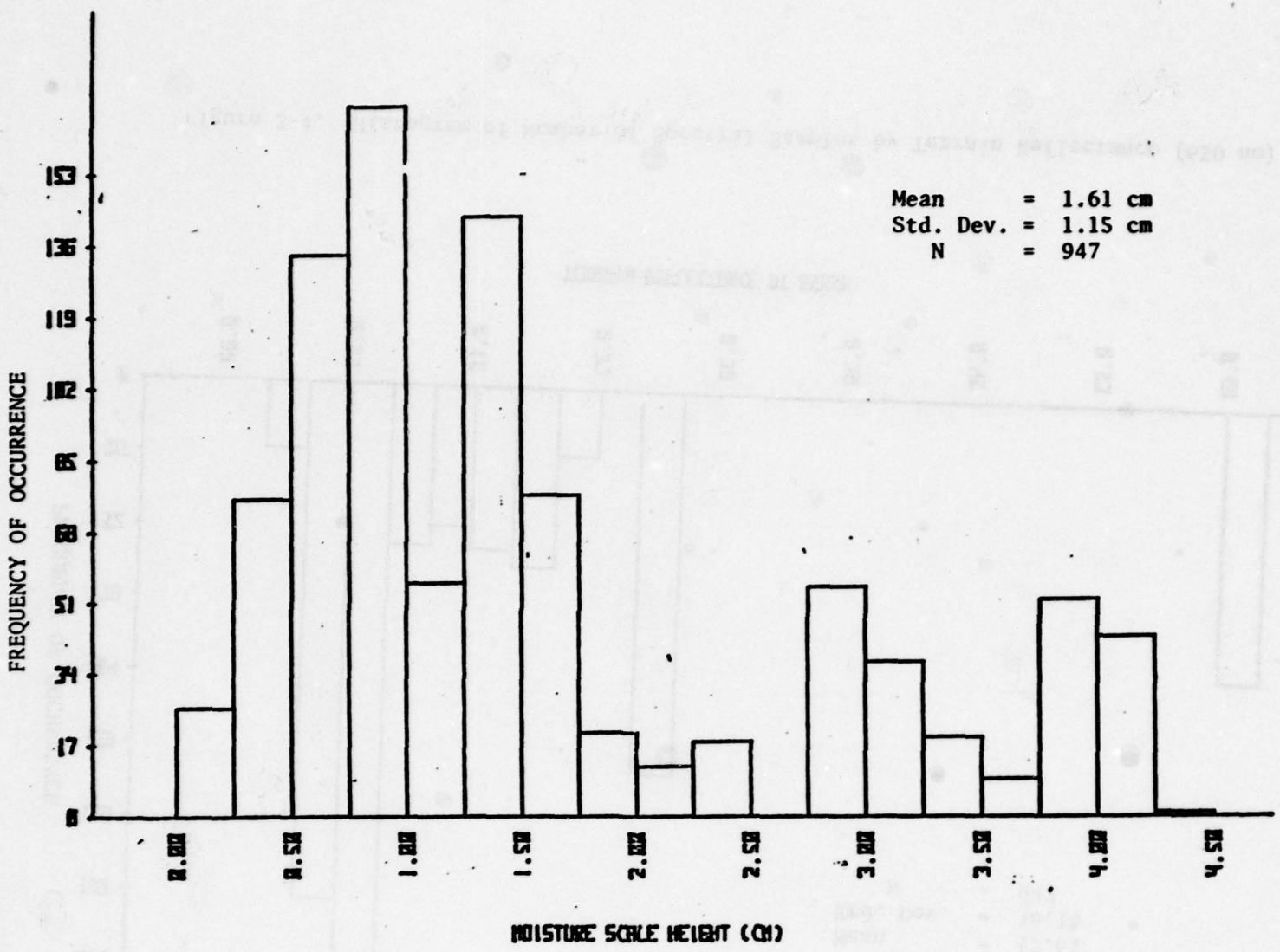


Figure 3-3. Histogram of Number of Spectral Samples by Moisture Scale Height

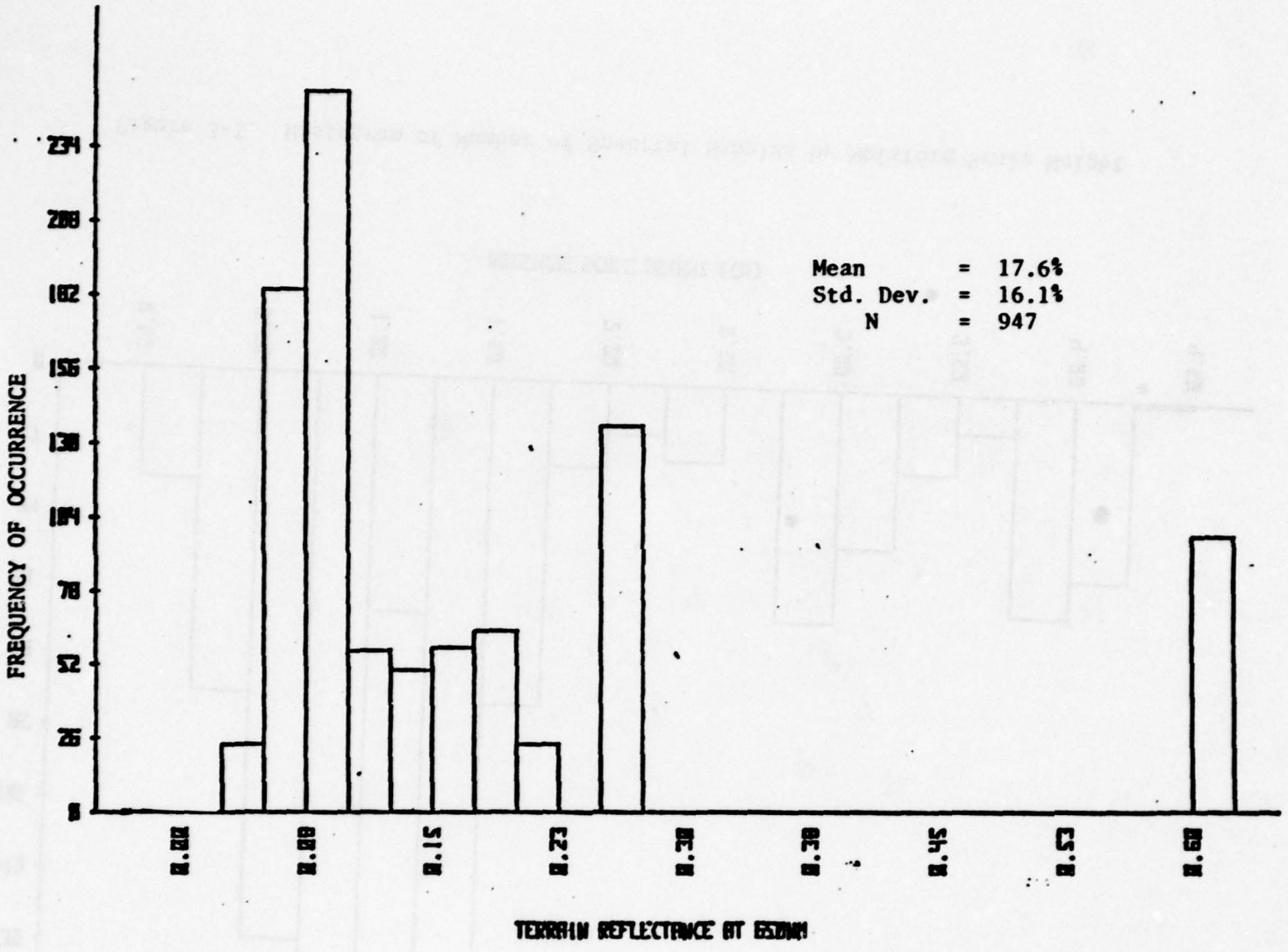


Figure 3-4. Histogram of Number of Spectral Samples by Terrain Reflectance (650 nm)

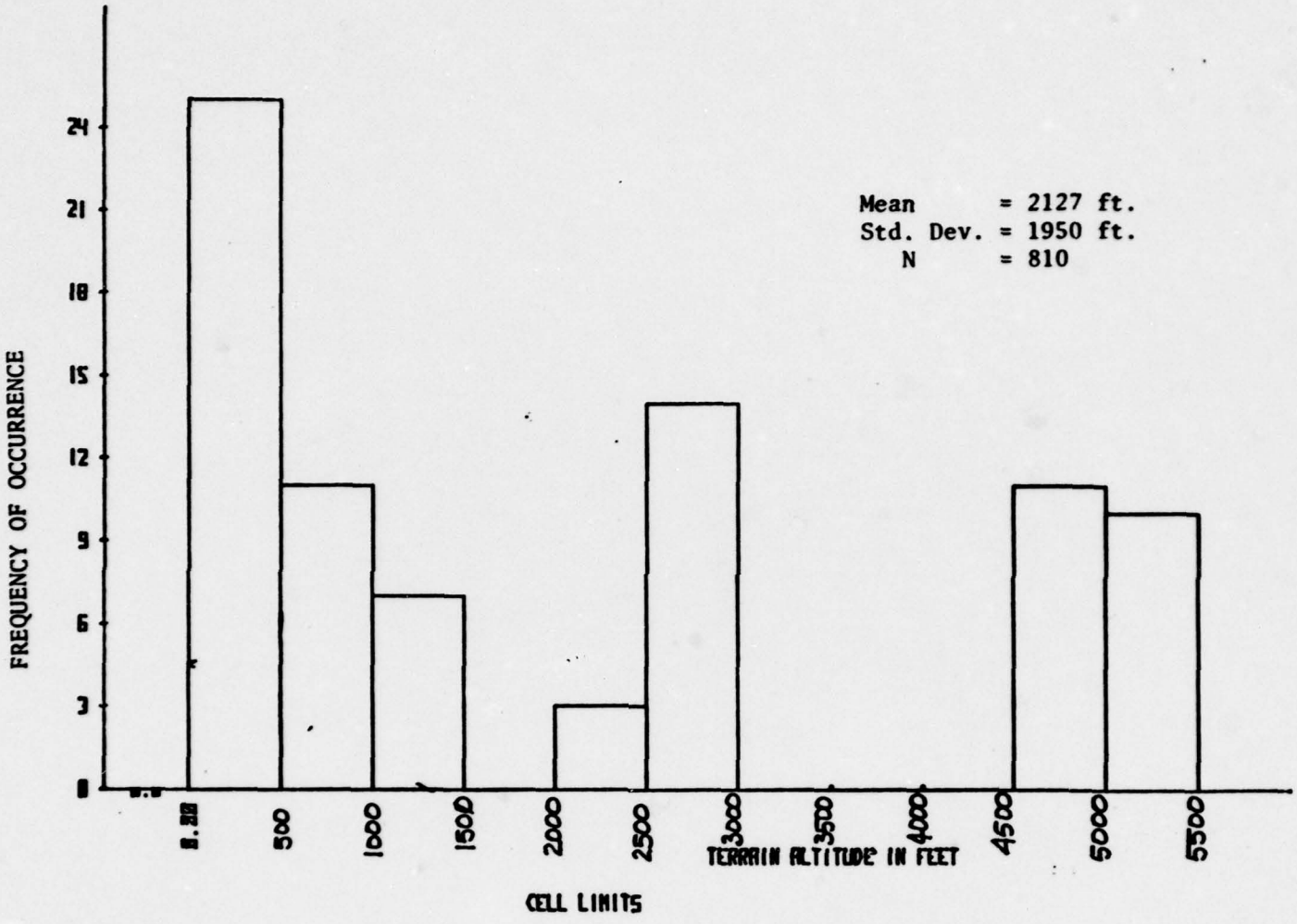


Figure 3-5. Histogram of Number of Spectral Samples by Terrain Altitude

SECTION 4
MEASUREMENT TYPES AND SEQUENCES

4.1 DESCRIPTION OF MEASUREMENTS

The design of the collection program included a description of the types and frequency of certain measurements on each site. This plan was implemented by the field operators and used to identify the measurements of a common type in later analyses. A number of priorities was also established as a guide for making operational decisions in the field, as follows:

Priority 1: Measurements of greatest significance that were to be made routinely each day of operation.

Priority 2: Measurements required at each site, but not necessarily each day. These were to be made at time intervals not interfering with Priority 1 collections and on days following successful Priority 1 collections.

Priority 3: Measurements of a specialized nature that were to be accomplished as specially requested operations. They were not to be made unless Priority 1 and 2 collections had already been satisfied for each site.

The codes assigned for measurements and a brief description of the wavelength and orientation limitations corresponding to each is contained in Table 4-1.

It was necessary to define the exact sequence of measurements so that collection of the most critical measurements could be made and still provide time for alternate observations. For this purpose, 10 unique instrument configurations were defined. Table 4-2 lists the operation sequences in terms of the servo positions and special geometry requirements. Since there were two identical irradiometers, selection of the instrument to make the irradiance measurement was left to the operator's discretion. A predetermined sequence of 92 angle pairs were used for the azimuth and elevation positions of the sky radiometer when the "sky map" measurements were made. The angles were selected to provide complete sky hemisphere coverage with minimum overlap of the 15° field-of-view optics. Table 4-3 lists the angular positions in the order of operation. All angular measurements are relative to the sun's azimuth (clockwise rotation, from top) and the true instrument horizontal.

TABLE 4-1

DESCRIPTION OF RADIOMETRIC MEASUREMENT PROGRAM
5 June 1975

CODE	TYPE OF MEASUREMENT	PRIORITY	DESCRIPTION OF ORIENTATION AND WAVELENGTH REQUIREMENTS
DH	Horizontal Daylight Irradiance	1	Irradiometer No. 1 or 2 with sphere aperture horizontal; solar disc block rotated 180° away from sun's azimuth.
SHT	Horizontal Total Skylight Irradiance	1	Irradiometer No. 1 or 2 with sphere aperture horizontal; solar disc block in sun's azimuth shadowing the aperture.
DV	Vertical Daylight Irradiance	1	Irradiometer No. 1 or 2 with sphere aperture rotated to 0° (upright orientation) and pointed at sun; aperture perpendicular to sun's azimuth; solar disc block removed.
SVB	Vertical Backlit, Skylight Irradiance	1	Irradiometer No. 1 or 2 with sphere aperture rotated 90° from horizontal and pointed directly away from the sun's azimuth; solar disc block removed.
DV (θ,ϕ)	Oblique Daylight Irradiance	3	Irradiometer No. 1 or 2 with sphere aperture rotated down from horizontal by ϕ° and pointed θ° away from sun's azimuth (clockwise rotation); solar disc block removed.
SRM	Sky Radiance - Map Mode Full Hemisphere	1	Sky Radiometer Telescope mapping entire sky hemisphere at three wavelengths.
SRP (θ,ϕ)	Sky Radiance - Point Mode, Oblique	3	Sky Radiometer Telescope pointed at θ from sun's azimuth and ϕ° up from horizontal.
SRP	Sky Radiance - Point Mode	1	Sky Radiometer Telescope pointed 180° away from sun's azimuth and elevated ϕ° above horizon, where: $\phi = \begin{cases} 90° - 2\,(\text{Solar Elevation}) \text{ where SE} \leq 35°, \text{ and} \\ 90° - (\text{Solar Elevation}) \text{ where SE} > 35° \end{cases}$

TABLE 4-1 (CONT'D)

DESCRIPTION OF RADIOMETRIC MEASUREMENT PROGRAM

CODE	TYPE OF MEASUREMENT	PRIORITY	DESCRIPTION OF ORIENTATION AND WAVELENGTH REQUIREMENTS
ARF	Albedo Reflectance	2	Utility radiometer pointed down, near the vertical, with narrow field optics to sample general terrain reflectance (typical of 10 mi. radius). Use either $BASO_4$ as standard reflector or irradiometer No. 1 if utility radiometer is calibrated for radiance.
TRA	Path Transmittance	1	Transmissometer telescope tracking central portion of the solar disc.
SC	Sky Camera Documentation	1	Pentax Automatic recording sky hemisphere conditions; interval from 5 to 20 min. varied depending on cloud cover.
HC	Local Horizon Profile	2	Local horizon profile recorded at 30° look azimuth increments.
WXV	Surface Meteorological Data - Onboard Van	1	Temperature, humidity, wind speed, direction, and pressure as sensed by 10 meter onboard station. Local contamination of measurement, either van-induced or caused by local topography was avoided.
WXF	Surface Meteorological Data Forecasting Station	2	Same as WXV data plus any auxiliary data on frontal movements available from local weather service station.
RAOB	Rawindsonde Upper Air Sounding	1	Local RAOB launch task at or near local noon. No field data required.

TABLE 4-2

OPERATING SEQUENCES

ACQUISITION NO.	IRRADIOMETER IRB	IRRADIOMETER IR	SKY RADIOMETER	TRANSMISSOMETER
1				
Azimuth	Az_O-180°	Az_O	Az_O-180°	Az_O
Elevation	90°	0°	90°-2SE or 90°-SE	El_O
Disc Block	No	---	---	---
Wavelength	350-1200,10	350-1200,10	350-1200,10	350-1200,10
Description	Horiz. Daylight Irradiance	Vert. Front-Lit Irradiance	Point Mode Sky Radiance	Solar Disc Radiance
2				
Azimuth	Az_O-180°	Az_O	Az_S Az_E	Az_O
Elevation	90°	0°	El_S El_E	El_O
Disc Block	No	---	Yes	---
Wavelength	450,650,850	450,650,850	450,650,850	450,650,850
Description	Horiz. Daylight Irradiance	Vert. Front-Lit Irradiance	Mapping Mode	Solar Disc Radiance
3				
Azimuth	Az_O	Az_O	Az_O-180°	Az_O
Elevation	90°	0°	90°-2SE or 90°-SE	El_O
Disc Block	Yes	---	---	---
Wavelength	350-1200,10	350-1200,10	350-1200,10	350-1200,10
Description	Horiz. Full Sky Irradiance	Vert. Front-Lit Irradiance	Point Mode	Solar Disc Radiance
4				
Azimuth	Az_O	Az_O	Az_S Az_E	Az_O
Elevation	90°	0°	El_S El_E	El_O
Disc Block	Yes	---	Yes	---
Wavelength	450,650,850	450,650,850	450,650,850	450,650,850
Description	Horiz. Full Sky Irradiance	Vert. Front-Lit Irradiance	Mapping Mode	Solar Disc Radiance

TABLE 4-2

OPERATING SEQUENCES (CONT'D)

AQUISITION NO.	IRRADIOMETER IRB	IRRADIOMETER IR	SKY RADIOMETER	TRANSMISSOMETER
5				
Azimuth	Az_0	Az_0-180°	Az_0-180°	Az_0
Elevation	90°	0°	90°-2SE or 90°-SE	El_0
Disc Block	Yes	---	---	---
Wavelength	350-1200,10	350-1200,10	350-1200,10	350-1200,10
Description	Horiz. Full Sky Irradiance	Vert. Back-Lit Irradiance	Point Mode Sky Radiance	Solar Disc Radiance
6				
Azimuth	Az_0	Az_0-180°	Az_S Az_E	Az_0
Elevation	90°	0°	El_S El_E	El_0
Disc Block	Yes	---	Yes	---
Wavelength	450,650,850	450,650,850	450,650,850	450,650,850
Description	Horiz. Full Sky Irradiance	Vert. Back-Lit Irradiance	Mapping Mode	Solar Disc Radiance
7				
Azimuth	Az_0-180°	Az_0-180°	Az_0-180°	Az_0
Elevation	90°	0°	90°-2SE or 90°-SE	El_0
Disc Block	---	---	---	---
Wavelength	350-1200,10	350-1200,10	350-1200,10	350-1200,10
Description	Horiz. Daylight Irradiance	Vert. Back-Lit Irradiance	Point Mode Sky Radiance	Solar Disc Radiance
8				
Azimuth	Az_0-180°	Az_0-180°	Az_S Az_E	Az_0
Elevation	90°	0°	El_S El_E	El_0
Disc Block	---	---	Yes	---
Wavelength	450,650,850	450,650,850	450,650,850	450,650,850
Description	Horiz. Daylight Irradiance	Vert. Back-Lit Irradiance	Mapping Mode	Solar Disc Radiance

TABLE 4-2

OPERATING SEQUENCES (CONT'D)

ACQUISITION NO.	IRRADIOMETER IRB	IRRADIOMETER IR	SKY RADIOMETER	TRANSMISSOMETER
9				
Azimuth	Az_0	Az_0	Az_0-180°	Az_0
Elevation	90°	90°	90°-2SE or 90°-SE	El_0
Disc Block	Yes	No	---	---
Wavelength	350-1200,10	350-1200,10	350-1200,10	350-1200,10
Description	Horiz. Full Sky Irradiance	Horiz. Daylight Irradiance	Point Mode Sky Radiance	Solar Disc Radiance
10				
Azimuth	Az_0	Az_0	Az_S Az_E	Az_0
Elevation	90°	90°	El_S El_E	El_0
Disc Block	Yes	No	Yes	---
Wavelength	450,650,850	450,650,850	450,650,850	450,650,850
Description	Horiz. Full Sky Irradiance	Horiz. Daylight Irradiance	Mapping Mode Sky Radiance	Solar Disc Radiance
___				
Azimuth				
Elevation				
Disc Block				
Wavelength				
Description				
___				
Azimuth				
Elevation				
Disc Block				
Wavelength				
Description				

TABLE 4-3

SKY MAP MEASUREMENT ELEVATIONS AND AZIMUTHS IN THE ORDER OF OPERATION

Point No.	AZ	EL	Point No.	AZ	EL	Point No.	AZ	El
2	7	7	33	122	22	64	240	67
3	7	22	34	112	7	65	240	82
4	4	37	35	127	7	66	276	67
5	22	67	36	138	22	67	279	52
6	22	52	37	138	37	68	269	37
7	22	37	38	151	52	69	252	22
8	22	22	39	154	37	70	247	7
9	22	7	40	154	22	71	262	7
10	37	7	41	142	7	72	269	22
11	40	22	42	157	7	73	277	7
12	40	37	43	172	7	74	285	22
13	48	52	44	170	22	75	288	37
14	60	67	45	174	37	76	302	22
15	73	52	46	174	52	77	292	7
16	61	37	47	168	67	78	307	7
17	56	22	48	195	37	79	318	22
18	52	7	49	187	22	80	307	37
19	67	7	50	187	7	81	307	52
20	72	22	51	202	7	82	312	67
21	80	37	52	202	22	83	330	52
22	89	22	53	212	37	84	326	37
23	82	7	54	204	52	85	334	22
24	97	7	55	204	67	86	322	7
25	105	22	56	228	52	87	337	7
26	99	37	57	231	37	88	351	7
27	99	52	58	220	22	89	351	22
28	96	67	59	217	7	90	345	37
29	120	82	60	232	7	91	356	52
30	132	67	61	236	28	92	348	67
31	125	52	62	250	37	93	360	82
32	118	37	63	253	52			

4.2 DESCRIPTION OF DAILY OPERATION

The four MRMS radiometric instruments (two irradiometers, a sky radiometer, and a solar disc radiometer) permitted as many as four measurements to be made simultaneously, such measurements being considered a measurement set. Each set included measurement of the solar disc radiance, which is used in the determination of atmospheric transmittance.

Each of the four MRMS instruments is operated by command software, which determines the wavelengths at which measurements are taken. In general, all measurements except sky radiance in the map mode were made from 350 to 1200 nanometers in 10 nanometer increments. Because of time constraints, sky radiance in the mapping mode was only measured at three wavelengths: 450, 650, and 850 nanometers. Other measurements of the same set had to be made at these wavelengths also.

The normal sequence of operations consisted of Priority 1 collections interspersed, where possible, with Priority 2 collections according to the schedule of operations 1 through 10. Sequence 1 through 10 of Table 4-2 was repeated several times as daylight hours permitted. Because solar altitude changes occur more rapidly near dawn and dusk, it was also necessary to group the instrument sequences into solar altitude ranges. For this purpose, the field crews used the following acquisition sequences:

Above 10° Solar Altitude: Make acquisitions 1 through 10.

Between 5° and 10° Solar Altitude: Make acquisitions 1 through 4; replicate in reverse order as time permits.

Below 5° Solar Altitude

On Odd-Numbered Days of Collection:

Make acquisition 9. Repeat first wavelength measurement after spectral scan is completed to serve as a monitor of level change during time of collection.

Make acquisition 10. Use horizontal full sky irradiance measurement to serve as a monitor of sky radiance level change during time of collection.

On Even Numbered Days of Collection:

Make acquisition 3. Repeat first wavelength after spectral scan is completed to serve as a monitor of level change during time of collection.

Make acquisition 4. Use horizontal full sky irradiance measurement as a monitor of sky radiance level change during time of collection.

4.3 OPERATOR COMMENT INFORMATION

The measurements discussed above were continued throughout the day as weather permitted, and the data was recorded automatically on tape cassettes. At the end of an acquisition day, supporting data for each acquisition was placed on the data tapes as header block information. The supporting data for each acquisition was entered in coded form (see Figure 4-1) and included the type of measurement made by each irradiometer, cloud information, and an estimate of data reliability.

Cloud-cover data consisted of location(s) relative to the sun, degree of cloud cover, and the cloud type. This data, based on observations at the time of the data acquisition, was designed to supplement the sky camera acquisitions, which were made at approximately 15-minute intervals. For example, some cirrus clouds that could go undetected in the sky camera acquisition might significantly affect the data.

The data reliability estimate was made in the form of a "0" to "3" rating scale for the measurement. A rating of 3 meant that the data were apparently good, with no significant changes in ambient conditions, no instrument problems, etc. A "0" rating meant that data should be rejected. Data rated "1" and "2" had certain potential problems associated with them that required judgment with respect to their usability.

On-board weather measurements were acquired with every radiometric data set. These measurements included temperature, relative humidity, barometric pressure, surface wind speed, and direction. Data were also provided by the Air Weather Service (AWS) or the National Weather Service (NWS) at most sites. This data was discussed in more detail earlier in this report (Section 3).

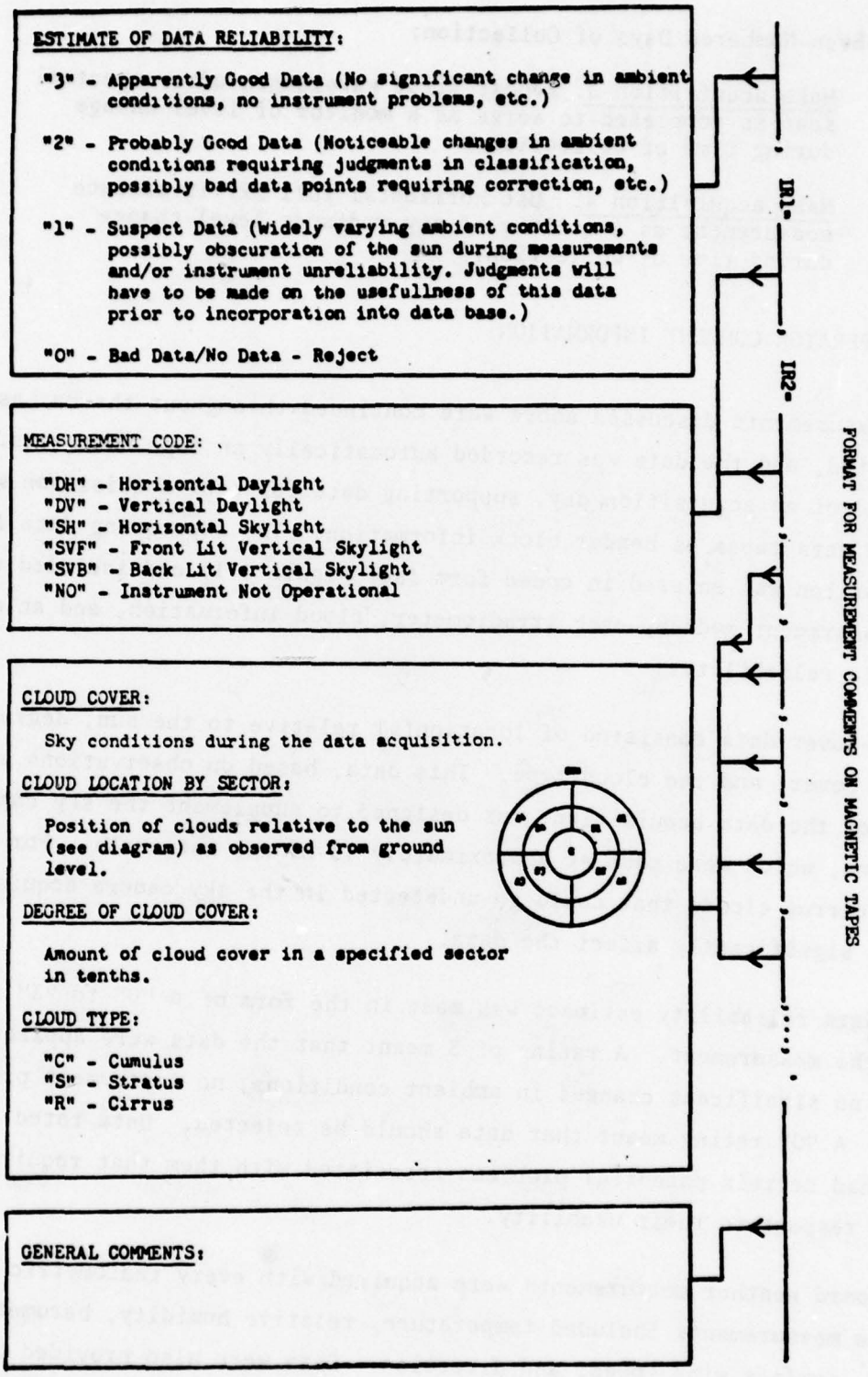


Figure 4-1. Header Block Comment Data

A complete set of panoramic photographs was taken of the surrounds of each measurement set. These photographs, taken of the horizon at 30-degree intervals in all directions, show the surround terrain, vertical obstructions, and any physical factors that might influence the acquired data. In addition, full-sky-hemisphere photography was obtained using a "fish-eye" lens adapted to the same camera. These images were taken continually throughout the measurement period. Figure 4-2 is an enlargement of one such photograph. Whenever it was practical, aerial photographs were taken of the site and were used to determine the effective albedo reflectance (see Section 5 of this report).

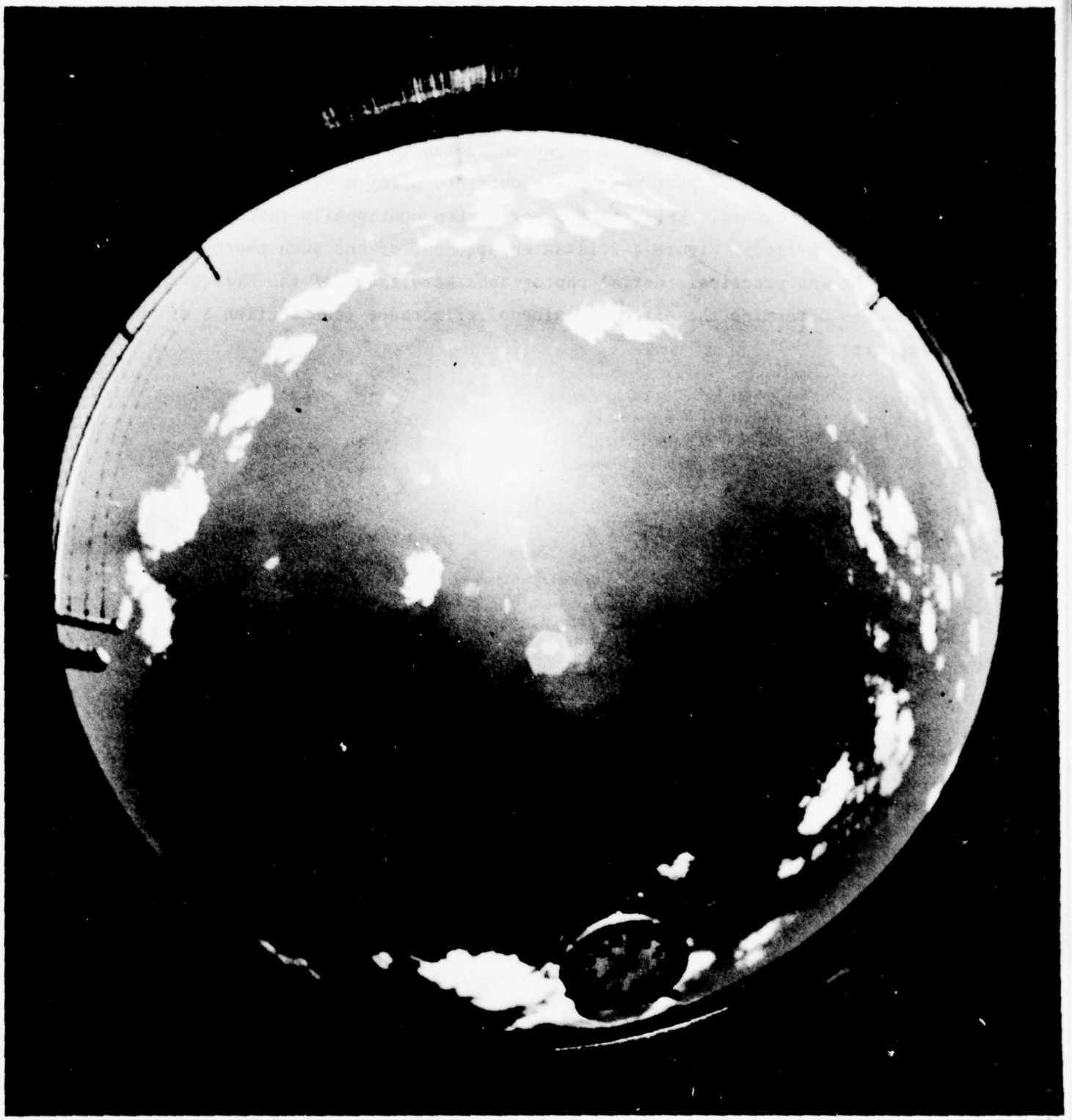


Figure 4-2. Enlargement of "Fish-Eye" Photography Taken at Each Site During Data Collection

SECTION 5

SPECIAL CONCURRENT EXPERIMENTS

5.1 DETERMINATION OF SITE SURROUND REFLECTANCE

5.1.1 High Altitude Photographic Coverage

Under the direction of A.F./LGYJ, U-2 flight tests were scheduled concurrently with the atmospheric measurements made by the mobile laboratory. The purpose of the flights was to obtain color imagery that could be used to estimate the general terrain spectral reflectance of the site surround terrain; this was later used in formulating the atmospheric model. The flight tests associated with the atmospheric measurements are listed in Table 5-1. Because of the occasional unavailability of ground control targets, or CORN targets* and aircraft, only three flights were actually flown concurrently with atmospheric measurements. However, most flights were conducted within 2 to 10 days of the atmospheric measurements, and it was believed that the time span between flights and measurements was so short that no appreciable change in terrain reflectance would occur. One flight was actually flown one year later but at nearly the same time of the month. Because considerable distances were involved, it was not possible to overfly all measurement sites. For these, terrain reflectance estimates were made using a geobotanical map of the area.

For these tests, U-2 aircraft were used flying at an altitude of 60,000 feet with a pair of 24-inch panoramic cameras. The film load consisted of SO-242 High Definition Color Film in the forward camera and SO-217 High Definition Black-and-White Film in the aft camera. The aperture was set at f/4.6 for the forward camera and f/3.5 for the aft. The exposure time was varied over a 6-ms to 8-ms range for the test depending on the solar altitude. The time of photography was scheduled with the midpoint of the flight to occur at true noon. This eliminated any substantial changes in solar altitude that would have necessitated a change in exposure during the test.

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* COntrol Range Network, prepared and displayed by Mead Technologies Laboratories, Dayton, Ohio.

TABLE 5-1

SUMMARY OF U-2 OVERFLIGHTS

Field No.	Date Flown	Location	Correspnding Atmospheric Measurement Date(s)
76-1	27 Feb 76	St. Cloud, Minn	21-27 Feb 76
76-3	1 Apr 76	Quillayoute, Wash.	3-6 Apr 76
76-4	21 Apr 76	Moffet Field, Cal.	13-26 Apr 76
76-6	4 Jun 76	San Diego, Cal.	12 May-1 Jun 76
76-7	9 Jun 76	Tucson, Ariz.	7-17 Jun 76
76-8	22 Jun 76	Winslow, Ariz.	28 Jun 76
76-9	29 Sep 76	Albuquerque, N.M.	12-19 Sep 76
76-10	5 Oct 76	Ogden, Utah	27-29 Sep 76
76-11	13 Oct 76	Denver, Colo.	21-22 Oct 75

CORN targets were deployed at each site for calibration and analysis of reflectance. Each deployment consisted of a 5-step gray scale, a 3-step gray scale, a 12- (or 6-) step color target, and a tri-bar resolution target. On some tests, not all the targets were displayed. The smallest display consisted of a 6-step color target and a 5-step gray scale target. Figure 5-1 is an enlargment made from high altitude color photography of a typical CORN deployment at a measurement site. On one flight (76-4), the targets were displayed at a distance of 20 miles from the mobile laboratory location; however, the terrain was quite similar and it was still possible to use the targets for calibration. Four passes over the target area were made by the U-2 aircraft to permit enough repetitive photography to be acquired to provide the analysts with reasonable confidence in the terrain reflectances derived.

5.1.2 Analysis of Color Imagery

Microdensitometry of the color imagery resulted in red, green, and blue densities that corresponded to each CORN panel. By regressing the measured densities from each photograph against the known ground reflectances of each

Figure 5-1. Example of Color U-2 Photography of a Data Collection Site Including CORN Targets

panel relative to each layer of the color film, it was possible to produce calibration between density and integrated reflectance. The spectral reflectance data was integrated numerically with respect to the camera/film system spectral response to produce three effective reflections. Large areas of the surround photography were then scanned with a microdensitometer to estimate the images' average red, green, and blue densities corresponding to the general terrain. These densities were then passed through the calibrations to obtain integrated terrain reflectances. The calibration equations were:

$$\log R_r = a_0 + a_1 D_r + a_2 D_r \times D_g + a_3 D_r \times D_b$$

$$\log R_g = b_0 + b_1 D_g + b_2 D_g \times D_r + b_3 D_g \times D_b$$

$$\log R_b = c_0 + c_1 D_b + c_2 D_b \times D_r + c_3 D_b \times D_g$$

Where: $D_{r,g,b}$ are Status A red, green, and blue densities of the CORN panels,

$R_{r,g,b}$ are integrated red, green, and blue reflectances of the CORN panels, and

$a_0 \ldots b_1 \ldots c_3$ are regression coeficients.

Table 5-2 lists the resulting integrated* reflectances corresponding to the flight tests in Table 5-1.

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* Integrated relative to 40 degrees solar altitude daylight irradiance, 24-inch Petzval lens, and SO-242 color film.

TABLE 5-2

INTEGRATED TERRAIN REFLECTANCES ESTIMATED FROM U-2 COLOR PHOTOGRAPHY

Site	Flight No.	Percent Reflectance Red	Green	Blue
St. Cloud, Minn	76-1	40.7	40.7	41.7
Quillayoute, Wash	76-3	3.8	4.5	4.1
Alameda, Calif	76-4	11.2	11.8	6.8
San Diego, Calif	76.6	14.5	12.3	8.3
Tucson, Ariz	76-7	26.3	20.4	15.1
Winslow, Ariz	76-8	23.4	15.1	14.1
Albuquerque, NM	76-9	18.6	13.8	12.3
Ogden, Utah	76-10	7.6	6.1	4.3
Denver, Col	76-11	12.3	10.2	8.1
Average		14.4	10.2	8.1

5.1.3 Reconstruction of Terrain Spectral Reflectances

The complete spectral reflectance of the surrounding terrain was reconstructed using an Eigenvector technique. Two sets of spectral reflectance data, one for plants and trees, and the other for sands and soils, were analyzed to produce a set of characteristic vectors for the two sample spaces. Each spectral reflectance curve of the sample spaces could then be reconstructed by multiplying the vectors of the corresponding space by the coeficients computed for that specific sample data, as follows:

$$R_s(\lambda) = M_s(\lambda) + A_1 \cdot V_{s1}(\lambda) + A_2 \cdot V_{s2}(\lambda) + A_3 \cdot V_{s3}(\lambda)$$

or,

$$R_p(\lambda) = M_p(\lambda) + B_1 \cdot V_{p1}(\lambda) + B_2 \cdot V_{p2}(\lambda) + B_3 \cdot V_{p3}(\lambda)$$

Where: $R_s(\lambda)$ is the spectral reflectance of any specific soil or sand sample,

$R_p(\lambda)$ is the spectral reflectance of any specific plant or tree sample,

$M_{s,p}(\lambda)$ are the mean row vectors,

$V_{s,p}(\lambda)$ are the chracteristic vectors,

A_1, A_2, A_3 or B_1, B_2, B_3 are coefficients corresponding to specific samples in the original sample sets.

The spectral reflectance data was also digitally integrated relative to the three bands of response corresponding to the color film, camera lens, and daylight irradiance used in the terrain reflectance flight tests.

Using linear regression techniques, a transformation was found between the integrated effective reflectances and the vector coefficients; that is,

$$\begin{bmatrix} A_1 \\ A_2 \\ A_3 \end{bmatrix} = \begin{bmatrix} TM_s \end{bmatrix} X \begin{bmatrix} R_r \\ R_g \\ R_b \end{bmatrix}$$

and,

$$\begin{bmatrix} B_1 \\ B_2 \\ B_3 \end{bmatrix} = \begin{bmatrix} TM_p \end{bmatrix} X \begin{bmatrix} R_r \\ R_g \\ R_b \end{bmatrix}$$

Given any set of integrated red, green, and blue reflectances (R_r, R_g, R_b), it was possible to estimate a spectral reflectance curve for soils and plants that could have produced the measured reflectances. If the operating site terrain had been all sand or all forest, then the estimated spectral reflectance would only have been that reconstructed for the corresponding spectral data space. Because this was not generally the case, a mixture of ground types was present. From visual inspection of the U-2 photography, it was

possible to estimate the fractions corresponding to sands/soils, and to plants/trees. In addition, an assessment of the fraction of water and/or snow surround was also made. These four surround types were then combined by weighting the spectral reflectance corresponding to each by the visual fraction to produce an overall estimate of the local earth albedo reflectance. Water and snow were handled as constant spectral reflectances and not reconstructed from any vector technique. To weight these factors, the following equation was used:

$$R_A(\lambda) = \alpha \cdot R_p(\lambda) + \beta \cdot R_s(\lambda) + \gamma \cdot R_\omega(\lambda) + \delta \cdot R_{sn}(\lambda)$$

Where: $R_A(\lambda)$ is the overall local spectral albedo reflectance,

$R_\omega(\lambda)$ is the average spectral reflectance of water,

$R_{sn}(\lambda)$ is the average spectral reflectance of snow, and

$\alpha, \beta, \gamma, \delta$ are fractions of each surround type ($\alpha+\beta+\gamma+\delta = 1.0$).

Figure 5-2 is a typical example of one such net, weighted spectral reflectance of the terrain surrounding a measurement site. Spectral reflectance curves for all sites can be found in Appendix D. Those identified as "geo-botanical" were reconstructed using red, green, and blue integrated reflectances, not from the photography, but from maps of vegetation and ground cover for the United States.

5.2 SURFACE AEROSOL OBSERVATIONS

5.2.1 The Albuquerque, N.M., Experiment

During the period from 12 September to 19 September 1976, concurrent experiments were conducted by radiometric laboratory personnel and by the U.S. Army Atmospheric Sciences Laboratory, White Sands Missile Range, N.M. At the request of the A.F. Weather Service, the White Sands Laboratory provided particle count observations to both parties continuously throughout the

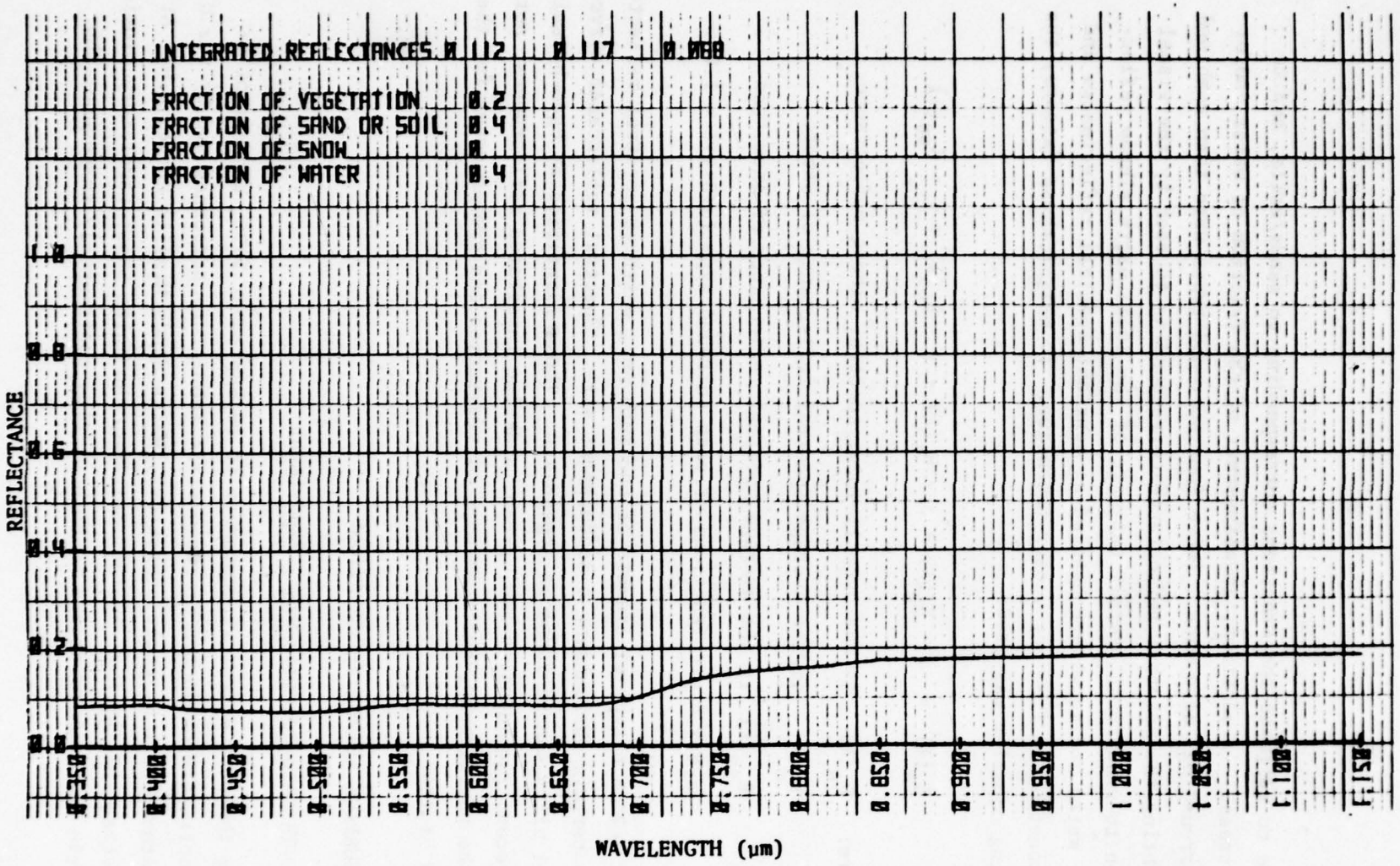

Figure 5-2. Local Terrain Spectral Albedo Reflectance for Alameda, California

period using an instrument developed by Particle Measurement System, Inc, called a Classical Scattering Aerosol Spectrometer.* Charts showing data on optical scattering, wind speed, and relative humidity at 15 minute intervals were provided to this contractor through AWS direction. These three factors tended to correlate, but showed different amounts of time lag. Table 5-3 summarizes these observations at, or just preceding, the measurement period for the four days that both experiments were conducted. The average of the morning and midday RAOB moisture scale heights is also included in Table 5-3.

TABLE 5-3

AEROSOL OBSERVATIONS AND METEOROLOGICAL DATA

Date: / Local Time:	9-12-76 13:26-17:15	9-13-76 13:01-19:00	9-14-76 13:15-17:00	9-19-76 13:17-19:38
RAOB Moisture Scale Ht.(cm)	1.26	1.30	1.73	1.39
Avg Particle Concentration ($Part/cm^3$)	0.4	1.30	4.2	1.5
Peak Particle Concentration ($Part/cm^3$)	0.5	4.3	5.8	2.3
Avg. Wind Speed (mph)	9.0	9.4	7.4	4.3
Peak Wind Speed (mph)	15.0	13.7	9.0	4.7
Avg. Wind Speed (mph) during previous 24 hours	---	8.3	14.1	7.2
Peak Wind Speed (mph) during previous 24 hours	---	14.8	26.6	11.4

* Described in Research and Development Technical Report, ECOM-5597, Response Calculations for a Commercial Light-Scattering Aerosol Counter, July 1976.

5.2.2 Normalizing Data to the AFCRL Aerosol Model

To normalize the particle concentration measurements to a definition consistent with the AFCRL model atmosphere, the assumptions of the particle size distribution and altitude concentration made by McClatchey et al.[6] were also used for our observations. Two interpolations were required before particle concentrations could be compared: (1) Although the particle sizes used by McClatchey were from .02 μm to 10 μm, the measurement sizes used at Albuquerque ranged from 0.4 μm to 4 μm, and (2) the McClatchey data had to be interpolated for a terrain altitude of 1.5 km. Although factors such as absolute instrument calibration and particle index-of-refraction data could not be critically compared, these two first-order corrections brought the measurements and theory into reasonable agreement. In Table 5-4, data from McClatchey can be compared with measured data.

TABLE 5-4

COMPARISON OF NORMALIZED PARTICLE CONCENTRATION DATA AND AFCRL MODEL

Date	Measured Mean Aerosol Concentration (part/cubic cm)	Aerosol Concentration Corrected for Size, Range, and Altitude (part/cubic cm)	Aerosol Concentration AFCRL Model (part/cubic cm)
9-12-76	0.4	317	2828* (Clear: 23 km visibility)
9-13-76	1.3	1023	
9-14-76	4.2	3308	13780** (Hazy: 5 km visibility)
9-19-76	1.5	1183	

As can be seen in Tables 5-3 and 5-4, there is a rough correspondence between particle concentration and average wind speed for the previous 24 hours and also possibly with moisture scale height. Spectral transmittance data for these same

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[6] R.A. McClatchey et al, Optical Properties of the Atmosphere, Third Edition, Air Force Systems Command, AFCRL-72-0497, 1972.

* Surface concentration equivalent to the Clear Model; that is, 23 km visibility.

** Surface concentration equivalent to the Hazy Model; that is, 5 km visibility.

four days showed a marked change in the aerosol coefficients derived from analysis of the term of extinction of aerosol scattering for these days (see section 2, volume 3, of this report). A correction for the aerosol scattering extinction coeficients was developed on the basis of this experiment.

SECTION 6

STORAGE AND RETRIEVAL OF COMPUTER DATA

6.1 DATA TRANSFER SOFTWARE

It was not possible to examine or analyze spectral and map data collected by the mobile radiometric laboratory in the cassette-tape form used to transmit data from the field. Therefore, a series of programs was developed to transfer this data to the flexible IBM 370 computer system and to manipulate and extract this data once it had been stored in the IBM system.

For this purpose, data in terms of raw measurement amperes and in engineering units were transferred from the cassette tapes to nine-track magnetic tapes on an off-line Data-General computer system for back-up or safe-storage purposes. A second transfer was also made of the data to a nine-track magnetic tape in engineering units that could easily be read by the IBM system. This tape was then used to prepare an IBM 3330 disk pack file for direct access in the analysis phases of the project. Figure 6-1 is a schematic of the flow of data after the data was received at this contractor's facility.

6.2 DATA GENERAL COMPUTER PROGRAM STDG

The transfer of data from cassettes to nine-track magnetic tapes for back-up was accomplished by the program STDG. This transfer was direct with no deletions or changes. The data was transferred to a 9-track magnetic tape using an off-line Data General Computer with a 9-track magnetic tape unit, a Sykes cassette unit, and a teletype. This data, in amperes, was stored on a different nine-track tape from the data in engineering units. Each tape was separated into files, each file containing one day's acquisitions. These nine-track tapes were an exact replicate of all data recorded on cassettes by the mobile Radiometric Laboratory. Four nine-track tapes were used to store the data: two tapes for data in amperes, and two tapes for the data in engineering units.

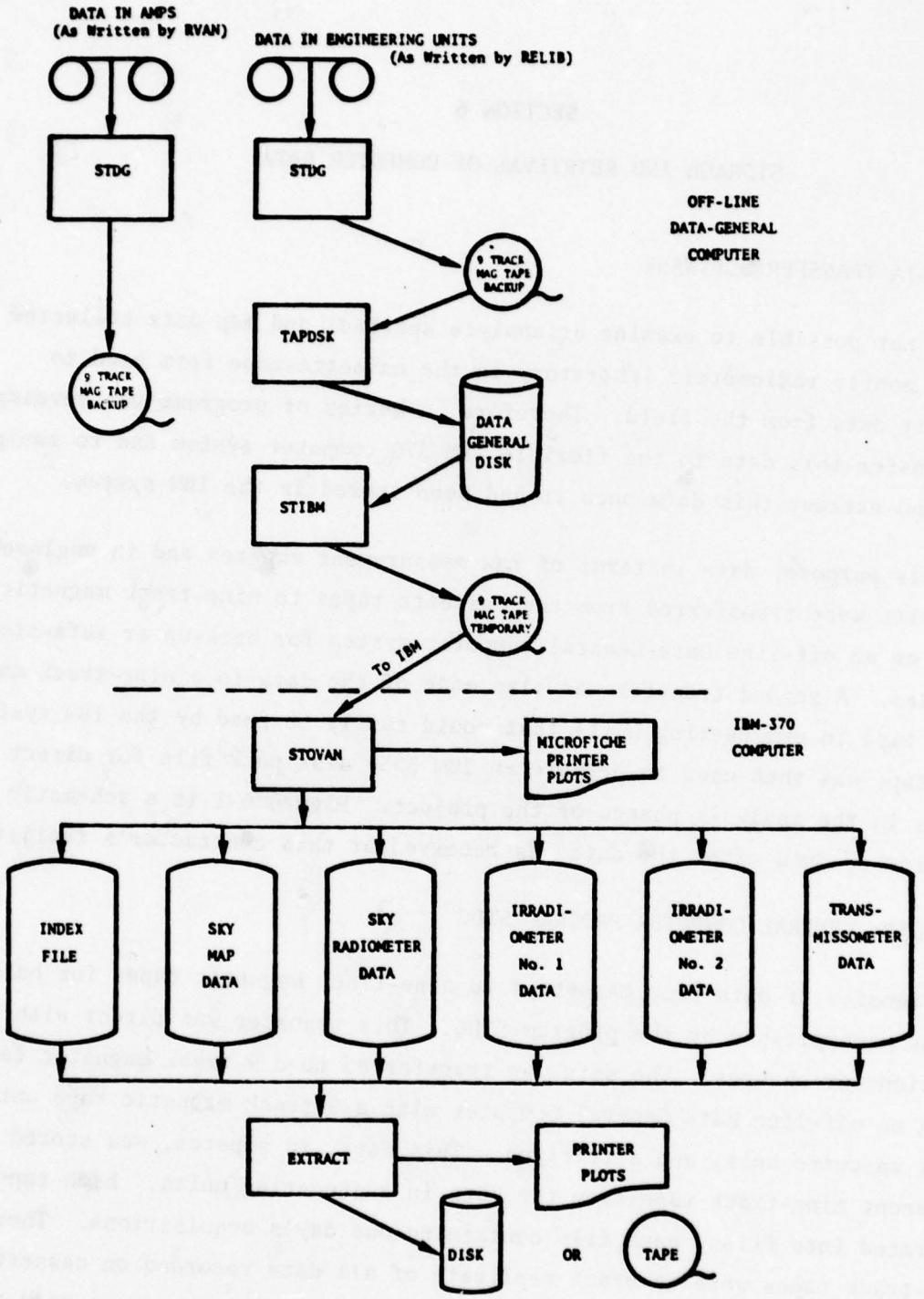

Figure 6-1. Schematic Showing Flow of Data in Preparation for Analysis

6.3 DATA GENERAL COMPUTER PROGRAMS TAPDSK AND STIBM1

To do large-scale data analysis, it was necessary to transfer the data in engineering units from the Data General computer to the IBM computer (see flow chart in Figure 6-1). When the transfer was made, an extra magnetic tape was made in addition to the backup tapes for two reasons: (1) use of this extra tape permitted the backup tapes to be kept in storage without the risk of loss of its data from manipulation on the computer system, and (2) the format of the backup tapes was not readily readable on the IBM system without a highly specialized assembler program. For these reasons, it was more efficient to create an extra tape on the Data General computer which could read these tape formats directly.

The transfer was done using two programs: (1) TAPDSK, which transferred data from the nine-track magnetic tape written by program STDG to the Data General disk file STOOR, and (2) STIBM1, which transferred data on the disk file STOOR to nine-track magnetic tape that can be read by the IBM system. The data was not transferred directly from cassette to nine-track magnetic tape because the Sykes cassette units were error prone and often required special handling before cassette tapes could be read accurately.

Whereas the program TAPDSK transferred the complete file from the nine-track magnetic backup tape to the disk, STIBM1 only transferred data that was necessary for analysis. The data that were not transferred to the magnetic tape were: (1) calibration acquisitions, (2) acquisitions that were prematurely terminated, as indicated by the absence of a finish time in the header block*, and (3) the directory* of the cassette.

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* See paragraph 4.3 of Vol 1 of this report.

STIBM1 changed the format of the data from the integer format to floating point format (see paragraph 4.5 of Vol 1, RELIB Program). The program also changed the comment field in the header block from ASCII to EBCDIC. These changes made it possible for the IBM to read the magnetic tape without a new assembler program.

6.4 COMPUTER PROGRAM STOVAN

6.4.1 Program Description

The magnetic tape created by STIBMI was processed on an IBM 370 System, and the data was stored by program STOVAN on a disk file for direct access in the future. STOVAN stored data from the magnetic tape into five disk files: one file for each of the four instruments, and a file for the sky maps. A sixth file was used as an index file to the direct access files. Other functions performed by program STOVAN were the deletion and modification of data already on the files, the computation of solar altitude and solar azimuth, the listing and printer-plotting of data, and interpolation of the data from 10-nanometer to 5-nanometer measurement increments.

6.4.2 Format of Data Received from Program STOVAN

The output from STOVAN provides files in three formats: (1) the index file, (2) the sky map file, and (3) the fixed geometry files.

The format for the Index File* consisted of:

Record 1 (unformatted):

Array 52 by 25 (stored as integers in two-byte words): Contains the starting record number for each week of the year in the first position of the array and the solar altitude range in the second position of the array for the sky map file.

Next (integer): Record number of the next unused record in the sky map file.

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* For detailed information on the Index File Format, see IBM System/360 Operating System FORTRAN IV (G and H) Programmer's Guide, "Direct-Access-Programming."

Record 2 (unformatted):

Array 52 by 25 (integer two bytes): Contains a count of the number of records for each week of the year in the first position of the array and each solar altitude range in the second position of the array.

Records 3, 5, 7, and 9 (unformatted):

Each record corresponds to the file for one of the four instruments: Sky radiometer, Irradiometer 1, Irradiometer 2, and Transmissometer.

Array 12 by 20 by 25 (integer two bytes): Contains the starting record number for each month in the first subscript, a vacancy in the second subscript (not used), and the solar altitude range in the third subscript.

NEXT (the integer variable): Is the record number of the next unused record in the file.

Records 4, 6, 8, and 10 (unformatted)

Each record corresponds to the file for one of the four instruments: Sky radiometer, Irradiometer 1, Irradiometer 2, and Transmissometer.

Array 12 by 20 by 25 (integer two bytes): Contains a count of the number of records for each month in the first subscript of array, a vacancy in the second subscript (not used), and the solar altitude range in the third subscript.

Each record on the sky radiance map data file has the following format:

Byte	Entry (Integer: 2 bytes)	RVAN Displacement No.	Description
1-4	Chain (integer 4 bytes)	Note 1	Record No. of next record in series of week number and solar altitude range.
5,6	Month	5	Date
7,8	Day	6	
9,10	Year	7	
11,12	Hour	8	GMT at beginning of acquisition
13,14	Minute	9	
15,16	Second	10	
17-20	Latitude (Real)	Note 2	
21-24	Longitude (Real)	Note 2	In degrees
25-28	Solar Altitude (Real)	Note 3	
29-32	Solar Azimuth (Real)	Note 3	
33,34	Wind Speed	38	Weather Data
35,36	Wind Direction	39	
37,38	Humidity	40	
39,40	Temperature	41	
41,42	Pressure	42	
43,44	Elevation	100	Height above mean sea level (feet)
45-204	Comments	102-181	Up to 160 characters, two characters per word.
205,206	First Wavelength	63	Explicit wavelengths, scan mode only
207,208	Second Wavelength	64	
209,210	Third Wavelength	65	

Note 1: For detailed information on the Sky Map File, see IBM System/360 Operating System, FORTRAN IV (G and H) Programmer's Guide, "Direct Access Programming."

Note 2: Program STOVAN changes these variables from the RVAN format to a more usable format.

Note 3: Program RVAN does not record these variables; instead they are computed internally in the STOVAN program.

Byte	Entry (Integer: 2 bytes)	RVAN Displacement No.	Description
211-244	(blanks)	-	-
245-248	Data Point, Irradiometer 1		
249-252	Data Point, Irradiometer 2		
253-256	Data Point, Transmissometer		
257-260	Data Point, Irradiometer 1	Note 4	The average irradiance and transmittance measurements at the first, second, and third wavelengths.
261-264	Data Point, Irradiometer 2		
265-268	Data Point, Transmissometer		
269-272	Data Point, Irradiometer 1		
273-276	Data Point, Irradiometer 2		
277-280	Data Point, Transmissometer		
281-474	(blanks)	-	-
475-476	Azimuth	20	First Instrument
477-478	Azimuth	23	Second Instrument
479-480	Azimuth	26	Third Instrument
481,482	Azimuth	29	Fourth Instrumment
483,484	(blanks)	-	-
485,486	Elevation	21	First Instrument
487,488	Elevation	24	Second Instrument
489,490	Elevation	27	Third Instrument
491,492	Elevation	30	Fourth Instrument
493,494	(blanks)	-	-
495,496	No. of Points	50	Number of points in full map table; scan mode only.
497,500	(blanks)	-	-
501,2036*	Map Table	Note 4	Array of sky radiance data (After all data for one wavelength is recorded, recording of the next wavelength is done without a break.)
2037-2054	(blanks)	-	-

Note 4: These variables have no corresponding RVAN header block displacement numbers, but they can be found in data files.

* See Vol 1, Para 4.3 for the order of the data.

Each record in the spectral data files of the Sky Radiometer, Irradiometer 1, Irradiometer 2, and Transmissometer has the following format for fixed geometry acquisitions:

Byte	Entry (Integer: 2 bytes)	RVAN Displacement No.	Description
1-4	Chain	Note 1	The record No. of the next record in the series organized by month and solar altitude range.
5,6	Month	5	Date
7,8	Day	6	
9,10	Year	7	
11,12	Hour	8	GMT at start of acquisition
13,14	Minute	9	
15,16	Second	10	
17-20	Solar Altitude	Note 3	
21-24	Blank		
25-28	Latitude	Note 2	In degrees
29-32	Longitude	Note 2	In degrees
33-36	Solar Azimuth	Note 3	
37-38	Instrument Azimuth	20,23,26,or 29	
39,40	Instrument Elevation	21,24,27,or 30	

Note 1: For detailed information on the Sky Map File, see IBM System/360 Operating System, FORTRAN IV (G and H) Programmer's Guide, "Direct Access Programming."

Note 2: Program STOVAN changes these variables from the RVAN format to a more usable format.

Note 3: Program RVAN does not record these variables; instead they are computed internally in the STOVAN program.

Byte	Entry (Integer: 2 bytes)	RVAN Displacement No.	Description
41,42	Wind Speed	38	
43,44	Wind Direction	39	
45,46	Humidity	40	Weather Data
47,48	Temperature	41	
49,50	Pressure	42	
51,52	Sea Elevation	100	Height above mean sea level (feet)
53-212	Comments	102-181	Up to 160 characters, 2 characters per word
213-216	(blanks)	-	-
217-864	Radiance, Irradiance, or Transmittance	Note 4	Data in 5 nm increments.
865-876	(blanks)	-	-

6.5 COMPUTER PROGRAM EXTRACT

6.5.1 Program Description

After the data is stored in the IBM 370 Computer, the program EXTRACT is used to retrieve it. The main purpose of the program is to extract data by month, day, year, solar altitude, time, and instrument type, thus providing data for only that specific measurement set. Alternatively, a complete listing of data for all dates and times can be obtained by specifying only the irradiance type (ex: "DH", for daylight horizontal). The program also lists and printer-plots data on command. The EXTRACT program reads the disk files created by STOVAN, extracts the requested data, and writes it in a second sequential file in the same format as STOVAN but without the variable termed CHAIN. Use of the second file permits more rapid access to data than would be possible by providing access to the original STOVAN disk file. This was the normal procedure for the analysis phase of this project where speed in handling the large volume of data was of importance.

Note 4. These variables have no corresponding RVAN header block displacement numbers, but they can be found in the RVAN data files.

6.5.2 EXTRACT Program

Because this program has not been documented elsewhere, its input requirements have been included in this report for purposes of completeness.

6.5.2.1 CARD No. 1 Input. Col. 1-4: PLOT, or blanks. If "PLOT" is specified, all the data that is extracted is also listed and plotted; otherwise the data is extracted only and written to the new disk file.

6.5.2.2. CARD No. 2 Input. Only columns 73-75 must be specified. If nothing is entered in columns 1-72, all data corresponding to the specified instrument will be extracted. If the data corresponding to a range of dates is desired, columns 1-6 are the starting date and columns 7-12 are the ending date. If no range is desired, columns 7-12 are left blank. Similarly, if data is desired for a range of times, columns 13-18 are the beginning hour, minute, and second; and columns 19-24 are the ending hour, minute, and second. If no range is desired, columns 19-24 are left blank. Data for a range of solar altitudes can also be extracted if columns 25-31 specify the starting solar altitude and columns 33-39 specify the ending solar altitude. If no range is desired, columns 33-39 are left blank. If specific ranges are desired, the following format for data inputs is followed:

Col. 1-2: Starting month (right justified)
Col. 3-4: Starting day (right justified)
Col. 5-6: Starting year
Col. 7-8: Ending month, or blank (right justified)
Col. 9-10: Ending day, or blank (right justified)
Col. 11-12: Ending year
Col. 13-14: Starting hour (right justified)
Col. 15-16: Starting minute (right justified)
Col. 17-18: Starting second (right justified)
Col. 19-20: Ending hour, or blank (right justified)
Col. 21-22: Ending minute, or blank (right justified)
Col. 23-24: Ending second, or blank (right justified)
Col. 25-31: Solar altitude
Col. 32: (blank)

Col. 33-39: Solar altitude, or blank

Col. 40-56: (blanks)

Col. 57-63: Latitude (If data for a particular site is required, the latitude should be specified.)

Col. 64: (blank)

Col. 65-72: Longitude (If data for a particular site is required, specify longitude.)

Col. 73-75: SKY (Sky radiance fixed geometry mode)

IR1 (Irradiometer 1 data)

IR2 (Irradiometer 2 data)

IRA (Transmissometer data)

MAP (Sky radiance map mode)

Col. 76: (blank)

Col. 77-79: DH (Daylight horizontal for IR1 or IR2)

DV (Daylight vertical for IR1 or IR2)

SH (Skylight horizontal for IR1 or IR2)

SVB (Skylight vertical backlit for IR1 or IR2)

SVF (Skylight vertical frontlit for IR1 or IR2)

APPENDIX A

PARAMETER SUMMARY

The following table gives the exact values or ranges by day-site for the parameters important to this project.

TABLE A-1

PARAMETER SUMMARY

SITE	DAY	GMT OF DATA COLLECTION (HOURS)	S. A. RANGE (DEGREES)	MOISTURE SCALE HEIGHT (CM)			TERRAIN ALTITUDE (FT)	TERRAIN REFLECTANCE @ 650M
				1200Z	1800Z	0000Z		
Little Rock, Ark.	8-6-75	2005 to 2245	58.73 to 27.62	1.989	2.874	3.440	311	0.085
Athens, Ga.	8-12-75	1803 to 2336	70.33 to 8.76	2.978	-	3.457	811	0.085
Athens, Ga.	8-13-75	2201 to 2215	28.24 to 25.22	2.965	3.784	3.256	811	0.080
Athens, Ga.	8-14-75	1342 to 1608	33.56 to 61.80	2.698	3.008	3.786	811	0.080
Tampa, Fla.	8-19-75	1429 to 2215	74.11 to 23.06	4.169	4.576	3.808	20	0.078
Apalachicola, Fla.	8-27-75	1447 to 2400	70.34 to 1.13	3.883	4.319	3.447	20	0.078
Apalachicola, Fla.	8-28-75	2015 to 2340	48.92 to 5.02	4.009	4.112	3.874	20	0.078
Denver, Col.	10-21-75	1855 to 2355	39.45 to 2.31	0.302	0.405	0.593	5400	0.123
Denver, Col.	10-22-75	1915 to 0003	38.66 to 0.83	0.338	-	0.940	5400	0.123
Vint Hill, Va.	11-6-75	1751 to 2005	33.57 to 19.37	1.823	2.452	2.522	420	0.080
Vint Hill, Va.	11-9-75	1615 to 2145	34.25 to 2.30	1.759	2.145	2.173	420	0.080
Vint Hill, Va.	11-11-75	1520 to 2120	33.71 to 6.29	0.626	0.631	1.073	420	0.080
St. Cloud, Min.	2-21-76	1715 to 2345	33.70 to 0.17	0.312	0.338	0.386	1028	0.407
St. Cloud, Min.	2-22-76	1952 to 2345	33.70 to 0.43	0.427	0.261	0.405	1028	0.407
St. Cloud, Min.	2-23-76	1415 to 2000	34.43 to 10.33	0.749	0.713	0.718	1028	0.407
St. Cloud, Min.	2-24-76	1734 to 2345	34.80 to 0.80	0.762	0.433	0.510	1028	0.407
St. Cloud, Min.	2-27-76	1650 to 1845	39.39 to 28.94	1.064	-	0.557	1028	0.407
Glasgow, Mont.	3-4-76	1415 to 2000	4.59 to 35.57	0.242	0.202	0.283	2279	0.407
Glasgow, Mont.	3-5-76	1400 to 1909	2.44 to 35.92	0.221	0.230	0.578	2279	0.407
Quillayute, Wash.	4-3-76	1706 to 2015	30.62 to 47.60	1.091	0.994	0.877	181	0.038
Quillayute, Wash.	4-5-76	1532 to 1805	16.50 to 39.29	0.860	0.981	1.341	181	0.038
Quillayute, Wash.	4-6-76	2300 to 0145	10.93 to 36.81	1.101	0.852	0.772	181	0.038
Alameda, Calif.	4-13-76	1533 to 2240	22.30 to 61.53	1.071	1.095	0.920	19	0.112
Alameda, Calif.	4-20-76	1349 to 1430	3.57 to 11.38	0.931	2.033	0.968	19	0.112
Alameda, Calif.	4-21-76	1350 to 1645	3.78 to 38.04	0.793	0.752	1.251	19	0.112
Alameda, Calif.	4-26-76	1326 to 0255	0.22 to 65.96	0.530	0.472	0.567	19	0.112
Vandenberg, Calif.	5-7-76	1930 to 0025	28.57 to 72.27	1.957	1.442	1.639	328	0.324
Vandenberg, Calif.	5-12-76	1343 to 0255	0.64 to 73.57	1.600	1.804	1.171	328	0.324
San Diego, Calif.	5-19-76	2050 to 0020	70.53 to 28.02	1.221	1.386	1.153	408	0.145
San Diego, Calif.	5-26-76	1935 to 0025	27.80 to 78.44	1.021	1.460	1.871	408	0.145
San Diego, Calif.	6-1-76	1832 to 2015	70.50 to 77.62	1.133	1.481	1.541	408	0.145
Tucson, Ariz.	6-7-76	2041 to 0225	70.48 to 0.18	1.400	1.320	1.080	2705	0.263
Tucson, Ariz.	6-8-76	1515 to 0130	10.49 to 80.73	0.988	0.768	1.290	2705	0.263
Tucson, Ariz.	6-9-76	1536 to 2030	39.34 to 80.81	1.022	1.352	1.079	2705	0.263
Tucson, Ariz.	6-11-76	1226 to 1930	0.95 to 80.96	0.871	0.645	0.652	2705	0.263
Tucson, Ariz.	6-17-76	1221 to 1905	0.00 to 80.24	1.385	1.507	1.924	2705	0.263
Winslow, Ariz.	6-28-76	1215 to 1930	0.10 to 78.24	1.296	1.400	1.612	4895	0.232

TABLE A-1 (CONT'D)

SITE	DAY	GMT OF DATA COLLECTION (HOURS)	S. A. RANGE (DEGREES)	MOISTURE SCALE HEIGHT (CM) 1200Z	1800Z	0000Z	TERRAIN ALTITUDE (FT)	TERRAIN REFLECTANCE @ 650Ω
Little Rock, Ark.	7-14-76	1412 to 1627	35.8 to 63.00	3.655	4.546	4.526	311	0.085
Little Rock, Ark.	7-19-76	1120 to 1620	1.27 to 61.12	2.416	-	3.908	311	0.085
Little Rock, Ark.	7-20-76	1128 to 1240	3.00 to 18.60	3.426	-	3.388	311	0.085
Little Rock, Ark.	7-21-76	1112 to 1800	-0.4 to 75.07	2.918	3.137	2.985	311	0.085
Athens, Ga.	8-4-76	1110 to 1457	3.74 to 50.08	1.999	1.971	2.000	811	0.080
Athens, Ga.	8-6-76	1111 to 1515	3.61 to 53.30	2.643	3.289	4.083	811	0.080
Athens, Ga.	8-10-76	1430 to 1705	44.38 to 70.16	2.849	2.876	2.657	811	0.080
Athens, Ga.	8-11-76	1100 to 1600	0.73 to 60.90	2.737	3.091	3.141	811	0.080
Athens, Ga.	8-12-76	1055 to 1350	-0.43 to 35.36	2.777	3.287	3.885	811	0.080
Athens, Ga.	8-13-76	1055 to 1600	-0.60 to 60.46	3.433	3.343	3.834	811	0.080
Apalachicola, Fla.	8-22-76	1225 to 2355	3.12 to 59.00	3.981	3.913	4.523	20	0.078
Apalachicola, Fla.	8-23-76	1245 to 1725	18.90 to 70.99	3.891	3.808	3.572	20	0.078
Albuquerque, N.M.	9-12-76	1326 to 1715	6.67 to 49.81	1.403	1.109	1.413	5263	0.173
Albuquerque, N.M.	9-13-76	1301 to 1900	1.55 to 58.44	1.097	1.495	1.785	5263	0.173
Albuquerque, N.M.	9-14-76	1315 to 1700	4.44 to 47.32	1.737	1.734	2.347	5263	0.173
Albuquerque, N.M.	9-19-76	1317 to 1938	4.15 to 56.13	1.385	1.393	1.715	5263	0.173
Ogden, Utah	9-27-76	1607 to 1920	28.84 to 46.91	1.252	1.210	0.852	4788	0.076
Ogden, Utah	9-28-76	1336 to 0120	-1.83 to 46.52	1.013	0.842	0.637	4788	0.076
Ogden, Utah	9-29-76	1330 to 2330	0.35 to 46.13	0.894	0.734	0.686	4788	0.076
Dayton, Ohio	10-22-76	1200 to 1530	0.06 to 32.70	0.421	0.541	0.626	970	0.195
Dayton, Ohio	10-26-76	1422 to 1515	23.19 to 29.94				970	0.195
Dayton, Ohio	10-28-76	1205 to 2230	-0.19 to 36.75				970	0.195
Dayton, Ohio	10-29-76	1430 to 1630	23.44 to 35.18	0.789	0.991	0.588	970	0.195

APPENDIX B

SURFACE METEOROLOGICAL DATA

The following table summarizes the surface meteorological observations nearest the time of the Rawinsonde launches of 1200, 1800, and 2400 GMT. Values that are asterisked are for observations taken within 3½ hours before or after the time of launch; however, fifty six percent of these observations were within 1 hour of launch. All other values were essentially concurrent with the RAOB launches.

TABLE B-1

SURFACE METEOROLOGICAL DATA

Date	Location	Surface Pressure (mb.)	Temperature (F) 1200Z	1800Z	0000Z	Relative Humidity (%) 1200Z	1800Z	0000Z	Avg. Wind Speed (Knots)	Avg. Wind Direction (Degr. from T.N.)
8/12/75	Athens	984		91	89*		48	52*	1.43	60
8/14/75	Athens	961	84*	90*		61*	49*		4.0	20/240
8/19/75	Tampa	984		94	93*		48	51*	12.47	300
8/27/75	Apalachicola	950	91*	91	90*	56*	61	55*	7.17	120
8/28/75	Apalachicola	980			89*			57*	5.0	100
10/21/75	Denver	769		82*	80*		21*	19*	1.14	---
10/22/75	Denver	755		82	83*		21*	20*	1.76	---
11/9/75	Vint Hill	953		79			54		1.36	160
11/11/75	Vint Hill	951		65			27		1.17	200
2/21/76	St. Cloud	903		25	28*		61	56*	6.5	340
2/22/76	St. Cloud	906		30*	33*		57*	50*	0.45	20
2/23/76	St. Cloud	891	32*	48		71*	44		2.47	240
2/24/76	St. Cloud	884		52	49*		50	55*	0.0	---
3/4/76	Glasgow	844	-6*	4*		71*	61*		0.85	320
3/5/76	Glasgow	841	2*	12*		73*	66*		1.42	140
4/5/76	Quillayute	866		55			55		1.93	180
4/6/76	Quillayute	897			60			38	1.96	20/220
4/21/76	Alameda	1014		57*			66*		2.25	20
4/26/76	Alameda	1015	60*	64	72	36*	31	25	10.12	20
5/7/76	Vandenberg	1003		65*	63		57*	67	7.00	300
5/12/76	Vandenberg	1003	71*	85	82	51*	36	40	1.96	20
5/19/76	San Diego	998			66			62	7.04	20
5/26/76	San Diego	1003		80*			42*		3.60	20
6/7/76	Tucson	920		101*	102		18*	17	6.36	20
6/8/76	Tucson	921	91*	94	100	22*	19	18	0.78	20
6/9/76	Tucson	923		92			24		2.41	20
6/11/76	Tucson	922	66*	80		32*	25		0.50	20
6/17/76	Tucson	920	81*	95		21*	22		3.74	20
6/28/76	Winslow	854	72*	96		25*	20		0.36	20
7/14/76	Little Rock	997	88*	94*		61*	53*		0.17	260
7/19/76	Little Rock	1009	84*			52*			0.79	60/140
7/20/76	Little Rock	1009	78			77			0.0	---
7/21/76	Little Rock	1005	79			76	90		2.76	260
8/4/76	Athens	994	69			78			2.31	40
8/6/76	Athens	990	72			74			1.15	220
8/10/76	Athens	991	79*	88*		59*	51*		0.75	20
8/11/76	Athens	995	75	85*		76	60*		2.54	60
8/12/76	Athens	995	73			81			0.12	100
8/13/76	Athens	989	76	89*		78	51*		0.26	240
8/22/76	Apalachicola	1016		90*	91		49*	54	5.55	260
8/23/76	Apalachicola	1015	81	96		71	34		1.98	340
9/12/76	Albuquerque	839	71*	74*		40*	34*		6.97	20
9/13/76	Albuquerque	840	62*	85		46*	25		1.90	20
9/14/76	Albuquerque	844	73*	82*		55*	35*		0.0	---
9/19/76	Albuquerque	838	70*	81		44*	25		1.10	240
9/27/76	Ogden	871		69			39		10.49	100
9/28/76	Ogden	872	53*	70	75	52*	33	25	3.99	100/320
9/29/76	Ogden	873	54*	71	78*	48*	31	23*	3.05	100/300
10/26/76	Dayton	990	44*			70*			6.10	20
10/28/76	Dayton	990	30	44	47*	77	38	34*	2.55	220
10/29/76	Dayton	992	43*	48*		49*	44*		3.88	220

* Readings are within 2.5 hours of aim time.

APPENDIX C

MEASUREMENT INDEX

This index lists all the spectroradiometric measurements made by the mobile radiometric laboratory during the collection phase of the project.

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
35.92	-92.15	8/ 6/75	20: 5:48	IR2	58.73	3	IR1=SH,IR2=DV
35.92	-92.15	8/ 6/75	20:35:40	IR2	53.31	3	IR1=DH,IR2=SVB
35.92	-92.15	8/ 6/75	20:50:20	IR2	50.52		
35.92	-92.15	8/ 6/75	20:50:20	IR2	50.52		
35.92	-92.15	8/ 6/75	22:11:16	IR2	34.47	3	IR1=DH,IR2=DV
35.92	-92.15	8/ 6/75	22:24:15	IR2	31.84	3	IR1=SH,IR2=DV
35.92	-92.15	8/ 6/75	22:40:14	IR2	28.60	3	IR1=SH,IR2=SVB
33.85	-83.32	8/12/75	18: 2:54	IR2	70.33	3	IR1=SH,IR2=SVF
33.85	-83.32	8/12/75	18:19:23	IR2	68.97	3	IR1=SH,IR2=SVB
33.85	-83.32	8/12/75	18:40:58	IR2	66.41	3	IR1=DH,IR2=SVB
33.85	-83.32	8/12/75	18:57:30	IR2	64.00	3	IR1=SH,IR2=DH
33.85	-83.32	8/12/75	20: 1:51	IR2	52.54	3	IR1=DH,IR2=SVF
33.85	-83.32	8/12/75	20:16:27	IR2	49.69	3	IR1=SH,IR2=SVF
33.85	-83.32	8/12/75	21:32:10	IR2	34.28	3	IR1=DH,IR2=SVF
33.85	-83.32	8/12/75	22: 7:23	IR2	26.97	3	IR1=SH,IR2=SVB
33.85	-83.32	8/12/75	22:18:56	IR2	24.57	3	IR1=DH,IR2=SVB
33.85	-83.32	8/12/75	22:49:29	IR2	18.24	3	IR1=DH,IR2=SVF
33.85	-83.32	8/12/75	23:22:39	IR2	11.43		
33.85	-83.32	8/12/75	23:35:45	IR2	8.76	3	IR1=DH,IR2=SVB
33.85	-83.32	8/13/75	22: 0:30	IR2	28.24	3	IR1=DH,IR2=SVF
33.85	-83.32	8/13/75	22:15: 4	IR2	25.22	3	IR1=SH,IR2=SVF
33.85	-83.32	8/14/75	13:42:11	IR2	33.56		
33.85	-83.32	8/14/75	13:59:41	IR2	37.17		
33.85	-83.32	8/14/75	14:15:45	IR2	40.46		
33.85	-83.32	8/14/75	14:33:34	IR2	44.08	3	IR1=SVB,IR2=DH
33.85	-83.32	8/14/75	15: 6:23	IR2	50.60		
33.85	-83.32	8/14/75	15:22: 3	IR2	53.61	3	IR1=DV,IR2=SH
33.85	-83.32	8/14/75	15:34:59	IR2	56.03	3	IR1=SVB,IR2=SH
33.85	-83.32	8/14/75	15:50:38	IR2	58.85	3	IR1=SVB,IR2=DH

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
27.85	-82.52	8/19/75	14:29: 3	IR2	44.41	3	IR1=DH,IR2=DH
27.85	-82.52	8/19/75	17:55:42	IR2	74.11	3	IR1=SH,IR2=SVF
27.85	-82.52	8/19/75	18: 6:33	IR2	73.13	3	IR1=SH,IR2=SVB
27.85	-82.52	8/19/75	18:19:43	IR2	71.55	3	IR1=DH,IR2=SVB
27.85	-82.52	8/19/75	18:35:43	IR2	69.16	3	IR1=SH,IR2=DH
27.85	-82.52	8/19/75	18:53:57	IR2	66.03	3	IR1=DH,IR2=DV
27.85	-82.52	8/19/75	19: 9:35	IR2	63.10	3	IR1=SH,IR2=DV
27.85	-82.52	8/19/75	19:26:19	IR2	59.79	3	IR1=SH,IR2=SVB
27.85	-82.52	8/19/75	19:39:58	IR2	57.00	3	IR1=DH,IR2=SVB
27.85	-82.52	8/19/75	19:54:15	IR2	54.02	3	IR1=SH,IR2=DH
27.85	-82.52	8/19/75	20:11:34	IR2	50.34		
27.85	-82.52	8/19/75	20:39:50	IR2	44.22	3	IR1=SH,IR2=SVB
27.85	-82.52	8/19/75	20:55:59	IR2	40.68	3	IR1=DH,IR2=SVB
27.85	-82.52	8/19/75	21:10: 0	IR2	37.60		
27.85	-82.52	8/19/75	21:30:59	IR2	32.97	3	IR1=DH,IR2=DV
27.85	-82.52	8/19/75	21:44:21	IR2	30.02	3	IR1=SH,IR2=DV
27.85	-82.52	8/19/75	22:11:14	IR2	24.08	3	IR1=DH,IR2=SVB
29.73	-85.05	8/27/75	14:55:40	IR2	46.56	3	IR1=SVB,IR2=SH
29.73	-85.05	8/27/75	15:10: 0	IR2	49.49	3	IR1=SVB,IR2=DH
29.73	-85.05	8/27/75	15:25: 0	IR2	52.49	3	IR1=DH,IR2=SH
29.73	-85.05	8/27/75	15:55: 0	IR2	58.22	3	IR1=SVF,IR2=DH
29.73	-85.05	8/27/75	16:12:48	IR2	61.36	3	IR1=SVF,IR2=SH
29.73	-85.05	8/27/75	16:25: 0	IR2	63.35	3	IR1=SVB,IR2=SH
29.73	-85.05	8/27/75	16:40: 0	IR2	65.58	3	IR1=SVB,IR2=DH
29.73	-85.05	8/27/75	16:55: 0	IR2	67.48	3	IR1=DH,IR2=SH
29.73	-85.05	8/27/75	17:25: 0	IR2	69.94	3	IR1=DH,IR2=SVF
29.73	-85.05	8/27/75	17:40: 0	IR2	70.34	3	IR1=SH,IR2=SVF
29.73	-85.05	8/27/75	17:55:28	IR2	70.10	3	IR1=SH,IR2=SVB
29.73	-85.05	8/27/75	18:10: 0	IR2	69.29	3	IR1=DH,IR2=SVB
[illegible]			[illegible]	IR2	67.94	3	IR1=SH,IR2=DH

LAT	LUNG	DATE	TIME	INST	SA	QUAL	COMMENTS
29.73	-85.05	8/27/75	18:55: 0	IR2	64.01	3	IR1=DH,IR2=SVF
29.73	-85.05	8/27/75	19:10: 3	IR2	61.59	3	IR1=SH,IR2=SVF
29.73	-85.05	8/27/75	19:25: 6	IR2	58.96	3	IR1=SH,IR2=SVB
29.73	-85.05	8/27/75	19:40: 0	IR2	56.21	3	IR1=DH,IR2=SVB
29.73	-85.05	8/27/75	19:55: 0	IR2	53.32	3	IR1=SH,IR2=DH
29.73	-85.05	8/27/75	20:15: 2	IR2	49.32	3	IR1=DH,IR2=SVF
29.73	-85.05	8/27/75	20:30: 0	IR2	46.25	3	IR1=SH,IR2=SVF
29.73	-85.05	8/27/75	20:45: 0	IR2	43.12	3	IR1=SH,IR2=SVB
29.73	-85.05	8/27/75	21:15: 0	IR2	36.77	3	IR1=SH,IR2=DH
29.73	-85.05	8/27/75	21:35:36	IR2	32.34	3	IR1=DH,IR2=SVF
29.73	-85.05	8/27/75	21:50: 0	IR2	29.23	3	IR1=SH,IR2=SVF
29.73	-85.05	8/27/75	22: 8:21	IR2	25.26	3	IR1=SH,IR2=SVB
29.73	-85.05	8/27/75	22:21:36	IR2	22.38	3	IR1=DH,IR2=SVB
29.73	-85.05	8/27/75	22:35: 2	IR2	19.46	3	IR1=SH,IR2=DH
29.73	-85.05	8/27/75	22:55: 0	IR2	15.13	3	IR1=DH,IR2=SVF
29.73	-85.05	8/27/75	23:11:38	IR2	11.53	3	IR1=SH,IR2=SVF
29.73	-85.05	8/27/75	23:25: 0	IR2	8.64	3	IR1=SH,IR2=SVB
29.73	-85.05	8/27/75	23:40:54	IR2	5.22	3	IR1=DH,IR2=SVB
29.73	-85.05	8/28/75	20:15: 0	IR2	48.92	3	IR1=SH,IR2=DV
29.73	-85.05	8/28/75	20:15: 0	IR2	48.92		
29.73	-85.05	8/28/75	20:30: 0	IR2	45.85	3	IR1=SH,IR2=DV
29.73	-85.05	8/28/75	21: 0: 0	IR2	39.57	3	IR1=DH,IR2=SVB
29.73	-85.05	8/28/75	21:15: 0	IR2	36.38	3	IR1=SH,IR2=DH
29.73	-85.05	8/28/75	21:50: 0	IR2	28.85	3	IR1=SH,IR2=DV
29.73	-85.05	8/28/75	22: 5: 0	IR2	25.60	3	IR1=SH,IR2=SVB
29.73	-85.05	8/28/75	22:20: 0	IR2	22.35	3	IR1=DH,IR2=SVB
29.73	-85.05	8/28/75	22:35: 0	IR2	19.09	3	IR1=SH,IR2=DH
29.73	-85.05	8/28/75	22:55: 0	IR2	14.75	3	IR1=DH,IR2=DV
29.73	-85.05	8/28/75	23:10:12	IR2	11.45	3	IR1=SH,IR2=DV
29.73	-85.05	8/28/75	23:25: 0	IR2	8.28	3	IR1=SH,IR2=SVB

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
39.72	-104.83	10/21/75	16:26:52	IR2	30.32		
39.72	-104.83	10/21/75	18:55: 0	IR2	39.45	3	IR1=SH,IR2=SVB
39.72	-104.83	10/21/75	19:13:18	IR2	39.06	3	IR1=DH,IR2=SVB
39.72	-104.83	10/21/75	19:26: 5	IR2	38.58	3	IR1=SH,IR2=DH
39.72	-104.83	10/21/75	19:39:50	IR2	37.89	3	IR1=DH,IR2=DV
39.72	-104.83	10/21/75	19:55: 0	IR2	36.90	3	IR1=SH,IR2=DV
39.72	-104.83	10/21/75	20: 9:54	IR2	35.73	3	IR1=SH,IR2=SVB
39.72	-104.83	10/21/75	20:40: 0	IR2	32.80	3	IR1=SH,IR2=DH
39.72	-104.83	10/21/75	20:54: 0	IR2	30.96		
39.72	-104.83	10/21/75	21:11: 7	IR2	29.08	3	IR1=SH,IR2=DV
39.72	-104.83	10/21/75	21:26: 1	IR2	27.09	3	IR1=SH,IR2=SVB
39.72	-104.83	10/21/75	21:41:19	IR2	24.92	3	IR1=DH,IR2=SVB
39.72	-104.83	10/21/75	22:25: 0	IR2	18.16	3	IR1=SH,IR2=DV
39.72	-104.83	10/21/75	22:55: 0	IR2	13.11	3	IR1=DH,IR2=SVB
39.72	-104.83	10/21/75	23:10: 8	IR2	10.47	3	IR1=SH,IR2=DH
39.72	-104.83	10/21/75	23:25:35	IR2	7.72	3	IR1=DH,IR2=DV
39.72	-104.83	10/21/75	23:40: 9	IR2	5.09		
39.72	-104.83	10/21/75	23:55:16	IR2	2.31		
39.72	-104.83	10/22/75	0: 3:14	IR2	0.83		
39.72	-104.83	10/22/75	19:15: 0	IR2	38.66	3	IR1=SH,IR2=SVF
39.72	-104.83	10/22/75	19:31:38	IR2	37.98	3	IR1=SH,IR2=SVB
39.72	-104.83	10/22/75	19:45: 0	IR2	37.23	3	IR1=DH,IR2=SVB
39.72	-104.83	10/22/75	20: 0: 0	IR2	36.19	3	IR1=SH,IR2=DH
39.72	-104.83	10/22/75	20:15: 0	IR2	34.95	3	IR1=DH,IR2=SVF
39.72	-104.83	10/22/75	20:30: 0	IR2	33.53	3	IR1=SH,IR2=SVF
39.72	-104.83	10/22/75	20:46:13	IR2	31.79	3	IR1=SH,IR2=SVB
39.72	-104.83	10/22/75	21: 1: 7	IR2	30.04	3	IR1=DH,IR2=SVB
39.72	-104.83	10/22/75	21:15: 9	IR2	28.26	3	IR1=SH,IR2=DH
39.72	-104.83	10/22/75	21:30:40	IR2	26.15	3	IR1=DH,IR2=SVF
39.72	-104.83	10/22/75	21:46:34	IR2	23.87	3	IR1=SH,IR2=SVF

LAT	LUNG	DATE	TIME	INST	SA	QUAL	COMMENTS
39.72	-104.83	10/22/75	22: 0: 0	IR2	21.85	3	IR1=SH,IR2=SVB
39.72	-104.83	10/22/75	22:17:11	IR2	19.15	3	IR1=DH,IR2=SVB
38.79	-77.69	11/ 6/75	18: 5: 0	IR2	32.73	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 6/75	18:20: 0	IR2	31.62	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 6/75	18:35: 0	IR2	30.33	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 6/75	18:50: 0	IR2	28.86	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 6/75	19: 5: 0	IR2	27.23	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 6/75	19:20: 0	IR2	25.46	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 6/75	19:35: 0	IR2	23.55	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 6/75	20: 5: 0	IR2	19.37	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	16:15: 0	IR2	33.51	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	16:30: 0	IR2	33.98	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	17: 0:30	IR2	34.25	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	17:45: 0	IR2	33.03	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	18: 0:15	IR2	32.19	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	18:15: 0	IR2	31.17	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	18:30: 0	IR2	29.96	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	19:16:16	IR2	25.15	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	20: 2: 6	IR2	19.09	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	20:15:16	IR2	17.15	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	20:30: 0	IR2	14.90	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	20:45:23	IR2	12.46	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	21: 0: 0	IR2	10.07	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	21:30: 0	IR2	4.95	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	21:45: 4	IR2	2.30	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	15:20: 0	IR2	29.51	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	15:35: 0	IR2	30.71	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	15:50: 0	IR2	31.71	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	16: 5: 0	IR2	32.52	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	16:20: 0	IR2	33.13	3	IR1=NO,IR2=DH

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
38.79	-77.69	11/11/75	16:35: 0	IR2	33.52	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	16:50: 0	IR2	33.70	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	17: 5: 0	IR2	33.65	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	17:20:25	IR2	33.38	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	17:35: 0	IR2	32.92	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	17:50: 0	IR2	32.23	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	18: 5: 0	IR2	31.34	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	18:20: 0	IR2	30.26	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	18:35: 0	IR2	28.99	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	18:50: 0	IR2	27.56	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	19: 5: 0	IR2	25.96	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	19:20: 0	IR2	24.22	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	19:35: 0	IR2	22.34	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	19:50: 3	IR2	20.33	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	20: 4: 7	IR2	18.35	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	20:20: 0	IR2	16.01	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	20:35: 0	IR2	13.70	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	20:50: 0	IR2	11.30	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	21: 5: 0	IR2	8.83	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	21:20: 0	IR2	6.29	3	IR1=NO,IR2=DH
45.55	-94.07	2/21/76	17:15: 0	IR2	31.19	1	IR1=SH,IR2=SVB,A1=5R,A4=6R,B1=1R,B4=1R,FIRST FEW IR1 DATA
45.55	-94.07	2/21/76	17:31:13	IR2	32.14	1	IR1=SH,IR2=DH,A1=5R,A4=6R,B1=1R,B4=1R,POSSIBLE SUN OBS. FI
45.55	-94.07	2/21/76	17:45: 0	IR2	32.77	2	IR1=DH,IR2=DV,A1=4R,A4=7R,B1=1R,B4=1R,POSSIBLE SUN OBS.
45.55	-94.07	2/21/76	18: 0: 0	IR2	33.28	3	IR1=SH,IR2=DV,A1=4R,A4=7R,B1=1R,B4=1R
45.55	-94.07	2/21/76	18:15: 0	IR2	33.59	3	IR1=SH,IR2=SVB,A1=3R,A4=6R,B4=1R
45.55	-94.07	2/21/76	18:30:21	IR2	33.70	2	IR1=DH,IR2=SVB,A1=2R,A4=4R,B1=1R,LATE (ACTUALLY BEGAN AT 1
45.55	-94.07	2/21/76	18:45:51	IR2	33.60	3	IR1=SH,IR2=DH,A1=1R,A4=4R,B1=1R,LATE
45.55	-94.07	2/21/76	19: 0: 0	IR2	33.31	3	IR1=DH,IR2=DV,A1=1R,A4=3R,B1=1R
45.55	-94.07	2/21/76	19:15: 0	IR2	32.82	3	IR1=SH,IR2=DV,A1=1R,A4=2R
45.55	-94.07	2/21/76	19:30: 0	IR2	32.13	3	IR1=SH,IR2=SVB,A1=1R,A4=2R

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
45.55	-94.07	2/21/76	19:45: 0	IR2	31.26	3	IR1=DH,IR2=SVB,A1=1R,A3=1R,A4=2R
45.55	-94.07	2/21/76	20: 0: 0	IR2	30.21	3	IR1=SH,IR2=DH,A1=1R,A3=1R,A4=2R
45.55	-94.07	2/21/76	20:15: 0	IR2	28.99	3	IR1=DH,IR2=DV,A1=1R,A3=1R,A4=2R
45.55	-94.07	2/21/76	20:30: 0	IR2	27.62	3	IR1=SH,IR2=DV,A1=1R,A3=1R,A4=1R
45.55	-94.07	2/21/76	20:45: 0	IR2	26.09	3	IR1=SH,IR2=SVB,A3=1R,A4=1R
45.55	-94.07	2/21/76	21: 0: 0	IR2	24.44	3	IR1=DH,IR2=SVB,A3=1R,A4=1R
45.55	-94.07	2/21/76	21:15: 0	IR2	22.66	3	IR1=SH,IR2=DH,A3=1R,A4=1R
45.55	-94.07	2/21/76	21:30:37	IR2	20.69	3	IR1=DH,IR2=DV,A3=1R,A4=1R
45.55	-94.07	2/21/76	21:45: 0	IR2	18.77	3	IR1=SH,IR2=DV,A3=1R,A4=1R
45.55	-94.07	2/21/76	22: 0: 0	IR2	16.68	3	IR1=SH,IR2=SVB,A3=1R
45.55	-94.07	2/21/76	22:15: 0	IR2	14.51	3	IR1=DH,IR2=SVB,A3=1R
45.55	-94.07	2/21/76	22:30: 0	IR2	12.26	3	IR1=SH,IR2=DH,A3=1R
45.55	-94.07	2/21/76	22:45: 0	IR2	9.95	3	IR1=DH,IR2=DV,A3=1R
45.55	-94.07	2/21/76	23:30: 0	IR2	2.68	1	IR1=SH,IR2=DH,A3=1R,SUN OBS.(TREES) IR2=2.19E-8 AT FINISH
45.55	-94.07	2/21/76	23:45: 0	IR2	0.17	1	IR1=SH,IR2=DH,A3=1R,SUN OBS.(TREES) IR2=9.00E-9 AT FINISH
45.55	-94.07	2/22/76	19:52:18	IR2	31.12	0	
45.55	-94.07	2/22/76	20: 0:39	IR2	30.50	0	
45.55	-94.07	2/22/76	20:30: 0	IR2	27.95	3	IR1=SH,IR2=SVB,A1=1C,A4=1S
45.55	-94.07	2/22/76	20:45: 0	IR2	26.42	3	IR1=DH,IR2=SVB,A1=1C,A4=1S
45.55	-94.07	2/22/76	21: 0: 0	IR2	24.76	2	IR1=SH,IR2=DH,A1=1S,A4=1S,SKY RAD LOOKING AT TOWER. LOWERE
45.55	-94.07	2/22/76	21:15: 0	IR2	22.97	3	IR1=DH,IR2=DV
45.55	-94.07	2/22/76	21:30: 0	IR2	21.08	3	IR1=SH,IR2=DV,NO TRA
45.55	-94.07	2/22/76	21:45: 0	IR2	19.07	3	IR1=SH,IR2=SVB
45.55	-94.07	2/22/76	22: 0: 0	IR2	16.98	3	IR1=DH,IR2=SVB
45.55	-94.07	2/22/76	22:11:49	IR2	15.27	3	IR1=RAD,IR2=DH,REFL:BASO4
45.55	-94.07	2/22/76	22:15:24	IR2	14.74	3	IR1=RAD,IR2=DH,REFL:SNOW
45.55	-94.07	2/22/76	22:20:38	IR2	13.96	3	IR1=RAD,IR2=DH,REFL:SNOW
45.55	-94.07	2/22/76	22:25: 0	IR2	13.31	3	IR1=RAD,IR2=DH,REFL:BASO4
45.55	-94.07	2/22/76	22:30: 0	IR2	12.55	3	IR1=RAD,IR2=DH,REFL:SNOW
45.55	-94.07	2/22/76	22:35: 0	IR2	11.78	3	IR1=RAD,IR2=DH,REFL:BASO4

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
45.55	-94.07	2/22/76	22:40: 3	IR2	11.00	3	IR1=RAD,IR2=DH,REFL:SNOW
45.55	-94.07	2/22/76	22:45: 0	IR2	10.23	3	IR1=RAD,IR2=DH,REFL:BASO4
45.55	-94.07	2/22/76	23: 0: 0	IR2	7.85	3	IR1=SH,IR2=DV
45.55	-94.07	2/22/76	23:15: 0	IR2	5.42	1	IR1=DH,IR2=DV,POSSIBLE SUN OBS.(TREES)
45.55	-94.07	2/22/76	23:30: 0	IR2	2.94	1	IR1=SH,IR2=DV,POSSIBLE SUN OBS.(TREES)
45.55	-94.07	2/23/76	14:15: 0	IR2	10.33	1	IR1=SVB,IR2=SH,A1=6R,A2=6R,A3=2R,A4=8R,B1=8R,B2=3R,B3=4R,B
45.55	-94.07	2/23/76	14:30: 0	IR2	12.66	1	IR1=SVB,IR2=DH,A1=6R,A2=6R,A3=2R,A4=7R,B1=6R,B2=3R,B3=4R,B
45.55	-94.07	2/23/76	14:45: 0	IR2	14.92	1	IR1=DH,IR2=SH,A1=5R,A2=4R,A3=1R,A4=5R,B1=5R,B2=2R,B3=3R,B4
45.55	-94.07	2/23/76	15: 0: 0	IR2	17.11	1	IR1=DV,IR2=DH,A1=4R,A2=3R,A3=4R,A4=3R,B2=1R
45.55	-94.07	2/23/76	15:15: 0	IR2	19.22	3	IR1=DV,IR2=SH,A1=3R,A2=4R,A3=2R,B2=4R,POSSIBLE THAT IR2 EL
45.55	-94.07	2/23/76	15:30: 0	IR2	21.24	1	IR1=SVB,IR2=SH,A1=6R,A2=2R,A3=8R,A4=3R,B1=5R,B2=3R,B4=2R,P
45.55	-94.07	2/23/76	15:45: 0	IR2	23.15	1	IR1=SVB,IR2=DH,A1=5R,A2=1R,A3=8R,A4=3R,B1=5R,B2=3R,B4=2R,P
45.55	-94.07	2/23/76	16: 0: 0	IR2	24.96	1	IR1=DH,IR2=SH,A1=3R,A3=9R,A4=4R,B1=4R,B3=2R,B4=1R,POSSIBLE
45.55	-94.07	2/23/76	16:15: 0	IR2	26.63	3	IR1=DV,IR2=DH,A1=4R,A2=1R,A3=9R,A4=4R,B3=2R
45.55	-94.07	2/23/76	16:30: 0	IR2	28.18	3	IR1=DV,IR2=SH,A1=1R,A3=9R,A4=5R,B3=3R
45.55	-94.07	2/23/76	16:45: 0	IR2	29.58	2	IR1=SVB,IR2=SH,A1=1R,A3=5R,A4=6R,B4=2R,IR1 AZ HUNG UP.
45.55	-94.07	2/23/76	17: 0: 0	IR2	30.82	3	IR1=SVB,IR2=DH,A1=1R,A3=4R,A4=4R
45.55	-94.07	2/23/76	17:15: 0	IR2	31.89	3	IR1=DH,IR2=SH,A1=1R,A3=1R,A4=3R
45.55	-94.07	2/23/76	17:30: 0	IR2	32.79	3	IR1=DV,IR2=DH,A1=1R,A3=1R,A4=2R
45.55	-94.07	2/23/76	17:45: 0	IR2	33.50	3	IR1=DV,IR2=SH,A1=1R,A3=1R,A4=2R
45.55	-94.07	2/23/76	18: 0: 0	IR2	34.01	3	IR1=SVB,IR2=SH,A1=1R,A2=1R,A3=2R,A4=1R
45.55	-94.07	2/23/76	18:15: 0	IR2	34.32	3	IR1=SVB,IR2=DH,A1=1R,A2=1R,A3=1R
45.55	-94.07	2/23/76	18:30: 0	IR2	34.43	3	IR1=DH,IR2=SH,A1=1R,A2=1R,A4=1R
45.55	-94.07	2/23/76	19: 0: 0	IR2	34.04	1	IR1=RAD,IR2=DH,A1=2R,A2=1R,A4=1R,REFL:SNOW,DARK CURRENT OV
45.55	-94.07	2/23/76	19: 4:43	IR2	33.90	3	IR1=RAD,IR2=DH,A1=3R,A2=1R,A3=1R,A4=1R,REFL:BASO4
45.55	-94.07	2/23/76	19:11: 2	IR2	33.69	1	IR1=RAD,IR2=DH,A1=3R,A2=1R,A301R,A4=1R,REFL:SNOW,RAD AZ=SU
45.55	-94.07	2/23/76	19:14:42	IR2	33.55	3	IR1=RAD,IR2=DH,A1=4R,A2=1R,A3=1R,A4=1R,REFL:SNOW,RAL AZ=SU
45.55	-94.07	2/23/76	19:18:38	IR2	33.39	3	IR1=RAD,IR2=DH,A1=4R,A2=1R,A3=1R,A4=1R,REFL:BASO4.RAD AZ=S
45.55	-94.07	2/23/76	19:24:50	IR2	33.11	3	IR1=RAD,IR2=DH,A1=4R,A2=1R,A3=1R,A4=1R,REFL:BASO4.RAD AZ=S
45.55	-94.07	2/23/76	19:32:24	IR2	32.72	1	IR1=DH,IR2=SVB,A1=4R,A2=1R,A3=1R,A4=2R,LATE,POSSIBLE SUN O

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
45.55	-94.07	2/23/76	19:45: 0	IR2	31.96	1	IR1=SH,IR2=DH,A1=3R,A4=3R,B1=2R,B4=3R,POSSIBLE SUN OBS.(CL
45.55	-94.07	2/23/76	20: 0: 0	IR2	30.90	1	IR1=DH,IR2=DV,A1=3R,A4=3R,B1=2R,B4=3R,POSSIBLE SUN OBS.(CL
45.55	-94.07	2/24/76	17:41:46	IR2	33.77	3	IR1=DH,IR2=DV
45.55	-94.07	2/24/76	17:56:45	IR2	34.31	3	IR1=SH,IR2=DV,LATE
45.55	-94.07	2/24/76	18:10: 0	IR2	34.63	3	IR1=SH,IR2=SVB
45.55	-94.07	2/24/76	18:25: 0	IR2	34.79	3	IR1=DH,IR2=SVB
45.55	-94.07	2/24/76	18:40: 0	IR2	34.75	3	IR1=SH,IR2=DH
45.55	-94.07	2/24/76	18:55: 0	IR2	34.51	1	IR1=DH,IR2=DV,B1=1R,CIRRUS MOVING INTO PATH OF SUN. SMALL
45.55	-94.07	2/24/76	19:10: 0	IR2	34.06	3	IR1=SH,IR2=DV,B4=1R
45.55	-94.07	2/24/76	19:25: 0	IR2	33.41	3	IR1=SH,IR2=SVB,A4=1R,IR2 LOOKING AT RAOB BLDG.(WHITE,VERY
45.55	-94.07	2/24/76	19:40:11	IR2	32.56	2	IR1=DH,IR2=SVB,A4=1R,CAUSE OF SERVO ERRORS UNKNOWN.
45.55	-94.07	2/24/76	19:55: 0	IR2	31.55	3	IR1=SH,IR2=DH,A4=1R,TOWER DOWN.
45.55	-94.07	2/24/76	20:10: 0	IR2	30.36	3	IR1=DH,IR2=DV
45.55	-94.07	2/24/76	20:25: 0	IR2	29.01	3	IR1=SH,IR2=DV
45.55	-94.07	2/24/76	20:40: 0	IR2	27.51	3	IR1=SH,IR2=SVB
45.55	-94.07	2/24/76	20:55: 0	IR2	25.87	3	IR1=DH,IR2=SVB
45.55	-94.07	2/24/76	21:10: 0	IR2	24.10	3	IR1=SH,IR2=DH
45.55	-94.07	2/24/76	21:25: 0	IR2	22.22	3	IR1=DH,IR2=DV,TOWER DOWN.
45.55	-94.07	2/24/76	21:40: 0	IR2	20.23	3	IR1=SH,IR2=DV
45.55	-94.07	2/24/76	21:55: 0	IR2	18.15	3	IR1=SH,IR2=SVB,A1=2R,B1=2R
45.55	-94.07	2/24/76	22:10: 0	IR2	15.98	3	IR1=DH,IR2=SVB
45.55	-94.07	2/24/76	22:25: 0	IR2	13.74	3	IR1=SH,IR2=DH
45.55	-94.07	2/24/76	22:40: 0	IR2	11.42	3	IR1=DH,IR2=DV
45.55	-94.07	2/24/76	22:55: 0	IR2	9.05	3	IR1=SH,IR2=DV
45.55	-94.07	2/24/76	23:10: 0	IR2	6.62	3	IR1=SH,IR2=DV
45.55	-94.07	2/24/76	23:25: 0	IR2	4.15	1	IR1=SH,IR2=DV,IR1=5.93E-8 AT FINISH 350 NM. POSSIBLE SUN O
45.55	-94.07	2/24/76	23:40: 0	IR2	1.64	1	IR1=SH,IR2=DV,POSSIBLE SUN OBS.(TREES)
45.55	-94.07	2/27/76	18: 0: 0	IR2	35.52	1	IR1=SH,IR2=SVB,SPECIAL AQUISITION REQUESTED.100% CIRRUS FO
45.55	-94.07	2/27/76	18:15: 0	IR2	35.83	1	IR1=DH,IR2=SVB
45.55	-94.07	2/27/76	18:30: 0	IR2	35.92	1	IR1=SH,IR2=DH

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
******	1278.98	2/27/76	18:45: 0	IR2	18.65	1	IR1=DH,IR2=DV
45.55	-94.07	2/27/76	19: 0: 0	IR2	35.49	1	IR1=SH,IR2=DV
48.22	-106.62	3/ 4/76	14:15: 0	IR2	4.59	3	IR1=DH,IR2=SH,A4=1S,IR2=5.67E-8 AT FINISH 350 NM.
48.22	-106.62	3/ 4/76	14:30: 0	IR2	6.99	3	IR1=DV,IR2=SH,A4=1S
48.22	-106.62	3/ 4/76	14:46: 6	IR2	9.52	3	IR1=DV,IR2=DH,A3=2S,A4=1S,IR2 GRATING FLIP MECH. STICKING.
48.22	-106.62	3/ 4/76	15: 2:41	IR2	12.08	3	IR1=DV,IR2=SH,A3=2S,A4=1S
48.22	-106.62	3/ 4/76	15:17:29	IR2	14.31	3	IR1=SVB,IR2=SH,A3=2S,A4=1S,LATE
48.22	-106.62	3/ 4/76	15:34:13	IR2	16.75	3	IR1=SVB,IR2=DH,A3=2S,A4=1S,LATE
48.22	-106.62	3/ 4/76	15:48:23	IR2	18.76	3	IR1=DH,IR2=SH,A2=1S,A3=5S,A4=1S
48.22	-106.62	3/ 4/76	16: 0: 0	IR2	20.35	3	IR1=DV,IR2=DH,A2=2S,A3=7S,A4=1S
48.22	-106.62	3/ 4/76	16:15: 0	IR2	22.32	2	IR1=DV,IR2=SH,A2=3S,A3=8S,A4=2S,B1=1R,B2=2R,C=2R,INCREASIN
48.22	-106.62	3/ 4/76	16:30: 0	IR2	24.21	1	IR1=SVB,IR2=SH,A1=2R,A2=3S,A3=8S,A4=2S,B1=2R,B2=2R,B3=3S,B
48.22	-106.62	3/ 4/76	19:15: 0	IR2	35.56	3	IR1=DH,IR2=SVB,A1=2S,A2=1S,A3=1S,A4=3S,B4=1R,C=1R
48.22	-106.62	3/ 4/76	19:30: 0	IR2	35.51	3	IR1=SH,IR2=DH,A1=2S,A2=1S,A3=1S,A4=3S
48.22	-106.62	3/ 4/76	19:45: 0	IR2	35.26	3	IR1=DH,IR2=DV,A1=5R,A2=3S,A3=3S,A4=4S
48.22	-106.62	3/ 4/76	20: 0: 0	IR2	34.82	1	IR1=SH,IR2=DV,A1=7R,A2=5S,A3=6R,A4=8R,B1=9R,B3=6R,B4=9R,SU
48.22	-106.62	3/ 5/76	14: 0: 0	IR2	2.44	3	IR1=DV,IR2=SH,TOWER DOWN
48.22	-106.62	3/ 5/76	14:15: 0	IR2	4.88	3	IR1=DV,IR2=SH,IR2=5.97-8 AT FINISH 350 NM
48.22	-106.62	3/ 5/76	14:30: 0	IR2	7.29	3	IR1=DV,IR2=SH
48.22	-106.62	3/ 5/76	14:45: 0	IR2	9.65	3	IR1=DV,IR2=DH
48.22	-106.62	3/ 5/76	15: 0: 0	IR2	11.98	3	IR1=DV,IR2=SH
48.22	-106.62	3/ 5/76	15:15: 0	IR2	14.25	3	IR1=SVB,IR2=SH
48.22	-106.62	3/ 5/76	15:30: 0	IR2	16.46	3	IR1=SVB,IR2=DH
48.22	-106.62	3/ 5/76	15:45: 0	IR2	18.61	2	IR1=DH,IR2=SH,SKY RAD FILT IN POS 2 WHEN IT SHOULD BE IN 3
48.22	-106.62	3/ 5/76	16: 0: 0	IR2	20.67	3	IR1=DV,IR2=DH
48.22	-106.62	3/ 5/76	16:15: 0	IR2	22.66	3	IR1=DV,IR2=SH
48.22	-106.62	3/ 5/76	16:30: 0	IR2	24.54	3	IR1=SVB,IR2=SH
48.22	-106.62	3/ 5/76	16:45: 0	IR2	26.32	3	IR1=SVB,IR2=DH
48.22	-106.62	3/ 5/76	17: 0: 0	IR2	27.99	3	IR1=DH,IR2=SH
48.22	-106.62	3/ 5/76	17:15: 0	IR2	29.53	3	IR1=DV,IR2=DH

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
48.22	-106.62	3/ 5/76	17:30: 0	IR2	30.92	3	IR1=DV,IR2=SH
48.22	-106.62	3/ 5/76	17:45: 0	IR2	32.17	3	IR1=SVB,IR2=SH
48.22	-106.62	3/ 5/76	18: 0: 0	IR2	33.26	3	IR1=SVB,IR2=DH
48.22	-106.62	3/ 5/76	18:15: 0	IR2	34.17	3	IR1=DH,IR2=SH
48.22	-106.62	3/ 5/76	18:30: 0	IR2	34.91	3	IR1=DV,IR2=DH,A2=1R,A3=1R
48.22	-106.62	3/ 5/76	19: 0: 0	IR2	35.80	1	IR1=SVB,IR2=SH,A2=6R,A3=8R,A4=8R,B3=8R,B4=8R,CIRRUS OVERCA
47.95	-124.55	4/ 3/76	17:15: 0	IR2	31.87	3	IR1=DV,IR2=DH,A3=2R,B3=2R
47.95	-124.55	4/ 3/76	17:30: 0	IR2	33.97	2	IR1=DV,IR2=SH,A3=2R,B3=2R,IR2 AT WRONG AZ FOR POINTS UP TO
47.95	-124.55	4/ 3/76	17:45: 0	IR2	35.99	2	IR1=SVB,IR2=SH,A3=1R,B3=1R,FIRST POINTS IR2 BAD. SUN BLOCK
47.95	-124.55	4/ 3/76	18: 0: 0	IR2	37.89	3	IR1=SVB,IR2=DH,A3=1R,B3=1R
47.95	-124.55	4/ 3/76	18:15: 0	IR2	39.67	3	IR1=DH,IR2=SH,A3=1R
47.95	-124.55	4/ 3/76	18:30: 0	IR2	41.31	3	IR1=DV,IR2=DH,A3=1R
47.95	-124.55	4/ 3/76	18:45: 0	IR2	42.80	3	IR1=DV,IR2=SH,A2=2R,A3=2R
47.95	-124.55	4/ 3/76	19: 0: 0	IR2	44.12	3	IR1=SVB,IR2=SH,A2=2R,A3=2R,B2=1R
47.95	-124.55	4/ 3/76	19:15: 0	IR2	45.25	3	IR1=SVB,IR2=DH,A1=1R,A2=3R,A3=2R,B3=2R
47.95	-124.55	4/ 3/76	19:30: 0	IR2	46.18	3	IR1=DH,IR2=SH,A1=3R,A2=5R,A3=4R
47.95	-124.55	4/ 3/76	19:45: 0	IR2	46.88	2	IR1=DV,IR2=DH,A1=5R,A2=7R,A3=3R,A4=3R,B1=3R,B2=3R,TOWER DO
47.95	-124.55	4/ 3/76	20: 0: 0	IR2	47.36	1	IR1=DV,IR2=SH,A1=5R,A2=7R,A3=5R,A4=4R,B1=5R,B2=4R,B3=3R,C=
47.95	-124.55	4/ 3/76	20:15: 0	IR2	47.60	1	IR1=SVB,IR2=SH,A1=5R,A2=7R,A3=5R,A4=4R,B1=4R,B2=5R,B3=5R,B
47.95	-124.55	4/ 5/76	15:32:13	IR2	16.50	3	IR1=SVB,IR2=SH,WEATHER SYSTEM OFF.
47.95	-124.55	4/ 5/76	15:47:12	IR2	18.97	3	IR1=SVB,IR2=DH,A1=1R,A2=1R,A3=1R,DARK CURRENT + FULL SCALE
47.95	-124.55	4/ 5/76	16:15: 0	IR2	23.48	3	IR1=DV,IR2=DH
47.95	-124.55	4/ 5/76	16:30: 0	IR2	25.85	3	IR1=DV,IR2=SH
47.95	-124.55	4/ 5/76	16:45: 0	IR2	28.18	3	IR1=SVB,IR2=SH
47.95	-124.55	4/ 5/76	17: 0: 0	IR2	30.44	3	IR1=SVB,IR2=DH
47.95	-124.55	4/ 5/76	17:15: 0	IR2	32.63	3	IR1=DH,IR2=SH
47.95	-124.55	4/ 5/76	17:30: 0	IR2	34.75	3	IR1=DV,IR2=DH
47.95	-124.55	4/ 5/76	17:45: 0	IR2	36.76	3	IR1=DV,IR2=SH
47.95	-124.55	4/ 5/76	18: 0: 0	IR2	38.67	3	IR1=SVB,IR2=SH
47.95	-124.55	4/ 6/76	23: 0: 0	IR2	36.81	3	IR1=DH,IR2=SVB,A2=3C,A3=2C,CUMULUS ON HORIZONILESS THAN 15

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
47.95	-124.55	4/ 6/76	23:15: 0	IR2	34.78	3	IR1=SH,IR2=DH,A2=3C,A3=2C
47.95	-124.55	4/ 6/76	23:30: 0	IR2	32.65	3	IR1=DH,IR2=DV,A2=2C,A3=3C
47.95	-124.55	4/ 6/76	23:45: 0	IR2	30.44	3	IR1=SH,IR2=DV,A1=1R,A2=4C,A3=4C,A4=1R
47.95	-124.55	4/ 6/76	24: 0: 0	IR2	28.16	3	IR1=SH,IR2=SVB,A1=1R,A2=3C,A3=3C,A4=1R
47.95	-124.55	4/ 7/76	0:15: 0	IR2	25.67	3	IR1=DH,IR2=SVB,A1=1R,A2=3C,A3=3C,A4=1R
47.95	-124.55	4/ 7/76	0:30: 0	IR2	23.29	2	IR1=SH,IR2=DH,A1=1R,A2=2C,A3=2C,A4=2R,B2=1C,SOME BAD POINT
47.95	-124.55	4/ 7/76	0:45: 0	IR2	20.86	1	IR1=DH,IR2=DV,A1=2R,A2=2C,A3=3C,A4=3R,POSS SUN OBS(CLDS).S
47.95	-124.55	4/ 7/76	1: 0: 0	IR2	18.41	1	IR1=SH,IR2=DV,A1=2R,A4=5R,POSS. SUN OBS.(CLDS).
47.95	-124.55	4/ 7/76	1:15: 0	IR2	15.93	1	IR1=SH,IR2=SVB,A1=2R,A4=3R,FULL SCALE NOT DONE BEFORE THIS
47.95	-124.55	4/ 7/76	1:30: 0	IR2	13.44	1	IR1=DH,IR2=SVB,A1=2R,A2=2C,A3=1C,A4=2R,PROB. SUN OBS.(CLDS
47.95	-124.55	4/ 7/76	1:45: 0	IR2	10.93	1	IR1=SH,IR2=DH,A1=2R,A2=2C,A3=1C,A4=2R,PROB. SUN OBS.(CLDS)
37.78	-122.32	4/13/76	15:55: 0	IR2	26.27	2	IR1=SVB,IR2=SH,A1=5R,A2=1S,A3=1R,A4=4R,SKY EL TROUBLE,SKY
37.78	-122.32	4/13/76	16:10: 0	IR2	29.19	2	IR1=SVB,IR2=DH,A1=5R,A2=1R,A3=1R,A4=5R,TOWER UP.
37.78	-122.32	4/13/76	16:25:28	IR2	32.17	2	IR1=DH,IR2=SH,A1=6R,A2=1R,A4=7R
37.78	-122.32	4/13/76	16:40: 0	IR2	34.94	2	IR1=DV,IR2=DH,A1=5R,A4=6R
37.78	-122.32	4/13/76	16:55: 0	IR2	37.75	2	IR1=DV,IR2=SH,A1=4R,A3=1R,A4=5R
37.78	-122.32	4/13/76	17:12:46	IR2	41.01	2	IR1=SVB,IR2=SH,A1=3R,A4=5R
37.78	-122.32	4/13/76	17:27:47	IR2	43.69	2	IR1=SVB,IR2=DH,A1=1C,A4=3R
37.78	-122.32	4/13/76	17:40: 0	IR2	45.80	2	IR1=DH,IR2=SH,A1=1C,A3=1R,A4=1R
37.78	-122.32	4/13/76	18:25: 0	IR2	52.93	2	IR1=SVB,IR2=SH,A1=1C,A4=1C
37.78	-122.32	4/13/76	18:40: 0	IR2	54.99	2	IR1=SVB,IR2=DH,A1=1C,A3=1R,A4=1R
37.78	-122.32	4/13/76	18:55: 0	IR2	56.84	2	IR1=DH,IR2=SH,A1=1C,A3=1R,A4=1C
37.78	-122.32	4/13/76	19:10: 0	IR2	58.44	2	IR1=DV,IR2=DH,A2=1R,A3=1R,A4=1C
37.78	-122.32	4/13/76	19:25: 0	IR2	59.74	2	IR1=DV,IR2=SH,A1=1C,A2=1R,A3=1R,A4=1C
37.78	-122.32	4/13/76	19:40: 0	IR2	60.71	2	IR1=SVB,IR2=SH,A1=1C,A2=1R,A3=1R,A4=1C
37.78	-122.32	4/13/76	19:55: 0	IR2	61.31	1	IR1=SVB,IR2=DH,A1=1R,A4=2C,B1=2R,POSS. SUN OBS.(CLDS.)
37.78	-122.32	4/13/76	20:10: 0	IR2	61.52	1	IR1=DH,IR2=SH,A1=1C,A3=2R,A4=2R,B1=3R,POSS SUN OBS.(CLDS.)
37.78	-122.32	4/13/76	20:25: 0	IR2	61.33	1	IR1=DV,IR2=DH,A1=2C,A2=1R,A3=4C,A4=3C,B1=2R,B2=1R,B4=1R,C=
37.78	-122.32	4/13/76	20:40: 0	IR2	60.75	1	IR1=DV,IR2=SH,A1=1C,A3=4C,A4=1C,B3=1R,B4=1R,POSS SUN OBS.(
37.78	-122.32	4/13/76	20:55: 0	IR2	59.80	2	IR1=SVB,IR2=SH,A1=1C,A2=1C,A3=4C,A4=2C,B2=1R,B3=3R

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
37.78	-122.32	4/13/76	21:10: 0	IR2	58.52	2	IR1=SVB,IR2=DH,A1=1C,A2=1C,A3=5C,A4=2C,B2=1R,B3=3R,B4=1R
37.78	-122.32	4/13/76	21:25: 0	IR2	56.94	1	IR1=DH,IR2=SH,A1=1C,A3=4C,A4=2C,B2=1R,B3=2R,B4=3R,C=5R,POS
37.78	-122.32	4/13/76	22:40: 0	IR2	45.95	2	IR1=SH,IR2=DH,A3=1C,A4=1C,B3=1R,ADJUSTED IR1 LAMBDA(OFF BY
37.78	-122.32	4/13/76	23:25: 0	IR2	37.91	1	IR1=SH,IR2=SVB,A2=3R,A3=2R,A4=1C,B2=2R,B3=2R,C=2R,POSS SUN
37.78	-122.32	4/13/76	23:40: 0	IR2	35.10	1	IR1=DH,IR2=SVB,A1=1R,A2=3R,A3=3R,A4=3R,B2=2R,B3=4R,B4=3R,,
37.78	-122.32	4/20/76	13:58: 9	IR2	5.16	2	IR1=DH,IR2=SH,A2=3S,A3=2S,3 MIN. LATE,FIRST 2 PTS. POSS. B
37.78	-122.32	4/20/76	14:10: 0	IR2	7.46	2	IR1=DV,IR2=SH,A2=3S,A3=2S,DID NOT HAVE TIME TO NORMALIZE.
37.78	-122.32	4/20/76	14:25: 0	IR2	10.40	2	IR1=SVB,IR2=SH,A2=2S,A3=2S,SKY EL TROUBLE-EL MAY NOT BE AS
37.78	-122.32	4/20/76	14:40: 0	IR2	13.35	2	IR1=SVB,IR2=DH,A2=2S,A3=3S,SKY EL TROUBLE-EL MAY NOT BE AS
37.78	-122.32	4/21/76	14: 0: 0	IR2	5.72	1	IR1=DV,IR2=DH,A1=9R,A4=8R,B1=6R,B4=7R,C=7R,SUN OBS.(CLDS),
37.78	-122.32	4/21/76	14:15: 0	IR2	8.65	1	IR1=DV,IR2=SH,A1=9R,A4=8R,B1=7R,B4=5R,C=1R,SUN OBS.(CLDS).
37.78	-122.32	4/21/76	14:30: 0	IR2	11.59	1	IR1=SVB,IR2=SH,A1=9R,A3=2R,A4=4R,B1=8R,B4=2R,SUN OBS.(CLDS
37.78	-122.32	4/21/76	14:45: 0	IR2	14.54	1	IR1=SVB,IR2=DH,A1=3R,A3=2R,A4=2R,B1=1R,B4=1R,POSS. SUN OBS
37.78	-122.32	4/21/76	15: 0: 0	IR2	17.50	3	IR1=DH,IR2=SH,A1=2R,A3=2R,A4=2R,HEAVY HAZE, BUT SUN NO LON
37.78	-122.32	4/21/76	15:15: 0	IR2	20.47	2	IR1=DV,IR2=DH,A1=1S,A3=2R,IR2 AZ RAN AWAY. DATA PTS. TO 80
37.78	-122.32	4/21/76	15:30: 0	IR2	23.43	2	IR1=DV,IR2=SH,A1=1S,A3=5R,A4=1R,SKY EL TROUBLE-EL MAY NOT
37.78	-122.32	4/21/76	15:45: 0	IR2	26.39	2	IR1=SVB,IR2=SH,A1=1S,A2=5R,A3=1S,A4=3R,B2=5R,B3=1R,B4=1R,S
37.78	-122.32	4/21/76	16: 0: 0	IR2	29.34	3	IR1=SVB,IR2=DH,A1=1S,A2=4R,A3=8R,A4=4R,B2=5R,B3=8R,B4=4R,S
37.78	-122.32	4/21/76	16:15: 0	IR2	32.27	1	IR1=DH,IR2=SH,A2=4R,A3=9R,A4=6R,POSS. SUN OBS.(CLDS). SOLA
37.78	-122.32	4/21/76	16:30: 0	IR2	35.17	1	IR1=DV,IR2=DH,A2=6R,A3=9R,A4=6R,B2=5R,B3=9R,B4=4R,C=4R,POS
37.78	-122.32	4/21/76	16:45: 0	IR2	38.05	1	IR1=DV,IR2=SH,A2=6R,A3=9R,A4=8R,B1=2R,B2=5R,B3=9R,B4=8R,SU
37.78	-122.32	4/26/76	13:37:43	IR2	2.64	1	IR1=DH,IR2=SH,A1=2R,A4=2R,SUN OBS.(CLDS).
37.78	-122.32	4/26/76	13:50: 0	IR2	4.99	1	IR1=DH,IR2=SH,A1=2R,A4=2R,SUN OBS.(CLDS).DID NOT HAVE TIME
37.78	-122.32	4/26/76	14: 5: 0	IR2	7.89	1	IR1=DV,IR2=SH,A1=2R,A4=2R,SUN OBS.(CLDS).
37.78	-122.32	4/26/76	14:20: 0	IR2	10.81	1	IR1=DV,IR2=SH,A1=1R,A4=1R,POSS. SUN OBS.(CLDS).
37.78	-122.32	4/26/76	14:35: 0	IR2	13.74	3	IR1=SVB,IR2=SH,A1=1R,A4=1R
37.78	-122.32	4/26/76	14:50: 0	IR2	16.69	3	IR1=SVB,IR2=DH,A1=1R,A4=1R
37.78	-122.32	4/26/76	15: 5: 0	IR2	19.65	3	IR1=DH,IR2=SH,A1=1R,A4=1R
37.78	-122.32	4/26/76	15:20: 0	IR2	22.62	3	IR1=DV,IR2=DH,A1=1R,A4=1R
37.78	-122.32	4/26/76	15:35: 0	IR2	25.58	3	IR1=DV,IR2=SH,A1=1R

LAT.	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
37.78	-122.32	4/26/76	15:50: 0	IR2	28.54	3	IR1=SVB,IR2=SH
37.78	-122.32	4/26/76	16: 5: 0	IR2	31.49	3	IR1=SVB,IR2=DH
37.78	-122.32	4/26/76	16:20: 0	IR2	34.43	3	IR1=DH,IR2=SH
37.78	-122.32	4/26/76	16:35: 0	IR2	37.34	3	IR1=DV,IR2=DH, CAUTION IR2 HAD 60NM SHIFT ON HI GRATING.
37.78	-122.32	4/26/76	16:50: 0	IR2	40.22	3	IR1=DV,IR2=SH
37.78	-122.32	4/26/76	17: 5: 0	IR2	43.06	3	IR1=SVB,IR2=SH
37.78	-122.32	4/26/76	17:20:40	IR2	45.97	3	IR1=SVB,IR2=DH
37.78	-122.32	4/26/76	17:35: 0	IR2	48.57	3	IR1=DH,IR2=SH
37.78	-122.32	4/26/76	17:50: 0	IR2	51.21	3	IR1=DV,IR2=DH
37.78	-122.32	4/26/76	18: 5: 0	IR2	53.75	3	IR1=DV,IR2=SH, CAUTION IR2 HI GRATING HAD 110NM SHIFT.
37.78	-122.32	4/26/76	18:20: 0	IR2	56.16	3	IR1=SVB,IR2=SH
37.78	-122.32	4/26/76	18:35: 0	IR2	58.41	3	IR1=SVB,IR2=DH
37.78	-122.32	4/26/76	18:50: 0	IR2	60.45	2	IR1=DH,IR2=SH,SOME BAD PTS ON IR1+IR2 BELOW 700NM(SOLAR DI
37.78	-122.32	4/26/76	19: 5: 0	IR2	62.26	3	IR1=DV,IR2=DH
37.78	-122.32	4/26/76	19:20: 0	IR2	63.76	3	IR1=DV,IR2=SH
37.78	-122.32	4/26/76	19:35: 0	IR2	64.91	3	IR1=SVB,IR2=SH
37.78	-122.32	4/26/76	19:50: 0	IR2	65.66	3	IR1=SVB,IR2=DH
37.78	-122.32	4/26/76	20: 5: 0	IR2	65.96	3	IR1=DH,IR2=SH,TRA LEFT OUT.
37.78	-122.32	4/26/76	20: 7:39	IR2	65.97	3	IR1=DH,IR2=SH,REPEAT OF LAST AQ. BUT INCLUDING TRA, CAUTI
37.78	-122.32	4/26/76	20:20: 0	IR2	65.80	3	IR1=DV,IR2=DH
37.78	-122.32	4/26/76	20:35: 0	IR2	65.19	3	IR1=DV,IR2=SH
37.78	-122.32	4/26/76	20:50: 0	IR2	64.17	3	IR1=SVB,IR2=SH, CAUTION IR2 HAD 60NM SHIFT ON HI GRATING.
37.78	-122.32	4/26/76	21: 5: 0	IR2	62.77	3	IR1=SVB,IR2=DH
37.78	-122.32	4/26/76	21:20: 0	IR2	61.05	3	IR1=DH,IR2=SH
37.78	-122.32	4/26/76	21:35: 0	IR2	59.08	3	IR1=DV,IR2=DH
37.78	-122.32	4/26/76	21:50: 0	IR2	56.89	3	IR1=DV,IR2=SH
37.78	-122.32	4/26/76	22: 7: 1	IR2	54.20	3	IR1=SVB,IR2=SH,LOADED NEW CASS. STARTED 2 MIN. LATE, IR1 U
37.78	-122.32	4/26/76	22:20: 0	IR2	52.03	3	IR1=SVB,IR2=DH
37.78	-122.32	4/26/76	22:35:49	IR2	49.28	3	IR1=DH,IR2=SH
37.78	-122.32	4/26/76	22:50: 0	IR2	46.72	3	IR1=DV,IR2=DH

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
37.78	-122.32	4/26/76	23: 5: 0	IR2	43.96	3	IR1=DV,IR2=SH, CAUTION IR2 HAD 60NM SHIFT ON HI GRATING.
37.78	-122.32	4/26/76	23:20: 0	IR2	41.13	3	IR1=SVB,IR2=SH
37.78	-122.32	4/26/76	23:35: 0	IR2	38.27	3	IR1=SVB,IR2=DH
37.78	-122.32	4/26/76	23:50: 0	IR2	35.37	3	IR1=DH,IR2=SH
37.78	-122.32	4/27/76	0: 5: 0	IR2	32.44	3	IR1=DV,IR2=DH
37.78	-122.32	4/27/76	0:20: 0	IR2	29.50	3	IR1=SH,IR2=DV
37.78	-122.32	4/27/76	0:35: 0	IR2	26.54	3	IR1=SH,IR2=SVB
37.78	-122.32	4/27/76	0:50: 0	IR2	23.58	3	IR1=DH,IR2=SVB
37.78	-122.32	4/27/76	1: 5: 0	IR2	20.62	3	IR1=SH,IR2=DH
37.78	-122.32	4/27/76	1:20: 0	IR2	17.66	3	IR1=DH,IR2=DV
37.78	-122.32	4/27/76	1:35: 0	IR2	14.71	3	IR1=SH,IR2=DV
37.78	-122.32	4/27/76	1:50: 0	IR2	11.78	3	IR1=SH,IR2=SVB
37.78	-122.32	4/27/76	2: 5: 0	IR2	8.86	3	IR1=DH,IR2=DV
37.78	-122.32	4/27/76	2:20: 0	IR2	5.96	3	IR1=SH,IR2=DV
37.78	-122.32	4/27/76	2:35: 0	IR2	3.08	3	IR1=SH,IR2=DH,IR1=2.09X10-8 AT FINISH 350NM.
37.78	-122.32	4/27/76	2:50: 0	IR2	0.24	1	IR1=SH,IR2=DH,SUN HAS ALREADY SET. TRA BROUGHT DOWN.IR11=6
34.75	-120.57	5/ 7/76	19:40: 0	IR2	71.75	3	IR1=SH,IR2=DH,A3=1S,A4=1C
34.75	-120.57	5/ 7/76	19:55: 0	IR2	72.24	3	IR1=DH,IR2=DV,A3=1S,A4=1C
34.75	-120.57	5/ 7/76	20:10: 0	IR2	72.11	3	IR1=SH,IR2=DV,A3=1C,A4=1C
34.75	-120.57	5/ 7/76	20:25: 0	IR2	71.37	3	IR1=SH,IR2=SVB,A3=1C,A4=1C,CUM. RESTRICTED TO NE HORZ.
34.75	-120.57	5/ 7/76	20:40: 0	IR2	70.08	3	IR1=DH,IR2=SVB,A3=1C,A4=1C
34.75	-120.57	5/ 7/76	20:55: 0	IR2	68.35	3	IR1=SH,IR2=DH,A3=1C,A4=1C
34.75	-120.57	5/ 7/76	21:10: 0	IR2	66.27	3	IR1=DH,IR2=DV,A3=1C,A4=1C
34.75	-120.57	5/ 7/76	21:25: 0	IR2	63.93	3	IR1=SH,IR2=DV,A3=1C,A4=1C
34.75	-120.57	5/ 7/76	21:40: 0	IR2	61.39	3	IR1=SH,IR2=SVB,A3=1C,A4=1C,COMPUTER DIED PREVIOUS TO THIS
34.75	-120.57	5/ 7/76	21:55: 0	IR2	58.71	3	IR1=DH,IR2=SVB,A2=1C,A3=1C
34.75	-120.57	5/ 7/76	22:10: 0	IR2	55.92	3	IR1=SH,IR2=DH,A2=1C
34.75	-120.57	5/ 7/76	22:25: 0	IR2	53.05	3	IR1=DH,IR2=DV,A2=1C
34.75	-120.57	5/ 7/76	22:40: 0	IR2	50.11	3	IR1=SH,IR2=DV,A2=1C
34.75	-120.57	5/ 7/76	22:55: 0	IR2	47.13	3	IR1=SH,IR2=SVB,A2=1C

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
34.75	-120.57	5/ 7/76	23:10: 0	IR2	44.11	3	IR1=DH,IR2=SVB,A2=1C
34.75	-120.57	5/ 7/76	23:25: 0	IR2	41.07	3	IR1=SH,IR2=DH,A1=2S,A2=3C,A4=2S
34.75	-120.57	5/ 7/76	23:40: 0	IR2	38.00	3	IR1=DH,IR2=DV,A1=3S,A2=2S,A3=1C,A4=3S
34.75	-120.57	5/ 7/76	23:55: 0	IR2	34.93	3	IR1=SH,IR2=DV,A1=4S,A2=2S,A3=1C,A4=3S
34.75	-120.57	5/ 8/76	0:10: 0	IR2	31.64	1	IR1=SH,IR2=SVB,A1=6S,A2=4S,A3=1S,A4=4S,B1=3S,B2=3S,B3=1R,B
34.75	-120.57	5/ 8/76	0:25: 0	IR2	28.56	1	IR1=DH,IR2=SVB,A1=9S,A2=10S,A3=3S,A4=8S,B1=6S,B3=2S,B4=3S,
34.75	-120.57	5/12/76	13:43:35	IR2	7.39	1	IR1=DV,IR2=DH,A1=1R,A2=1S,A4=1R,3 MIN. LATE,SKY HAZY,POSS
34.75	-120.57	5/12/76	13:55: 0	IR2	9.64	1	IR1=DV,IR2=SH,A1=1R,A2=1S,A4=1R,POSS SUN OBS(CLDS),DID NOT
34.75	-120.57	5/12/76	14:10: 0	IR2	12.63	3	IR1=SVB,IR2=SH,A2=1S
34.75	-120.57	5/12/76	14:25: 0	IR2	15.63	3	IR1=SVB,IR2=DH,A2=1S
34.75	-120.57	5/12/76	14:40: 0	IR2	18.66	3	IR1=DH,IR2=SH,A2=1S
34.75	-120.57	5/12/76	14:55: 0	IR2	21.71	3	IR1=DV,IR2=DH,A2=1S
34.75	-120.57	5/12/76	15:10: 0	IR2	24.77	3	IR1=DV,IR2=SH,A2=1S
34.75	-120.57	5/12/76	15:25: 0	IR2	27.84	3	IR1=SVB,IR2=SH,A2=1S
34.75	-120.57	5/12/76	15:40: 0	IR2	30.92	3	IR1=SVB,IR2=DH
34.75	-120.57	5/12/76	15:55: 0	IR2	34.00	3	IR1=DH,IR2=SH
34.75	-120.57	5/12/76	16:10: 0	IR2	37.08	3	IR1=DV,IR2=DH
34.75	-120.57	5/12/76	16:25: 0	IR2	40.16	3	IR1=DV,IR2=SH
34.75	-120.57	5/12/76	16:40: 0	IR2	43.22	3	IR1=SVB,IR2=SH
34.75	-120.57	5/12/76	16:55: 0	IR2	46.27	3	IR1=SVB,IR2=DH
34.75	-120.57	5/12/76	17:10: 0	IR2	49.29	3	IR1=DH,IR2=SH
34.75	-120.57	5/12/76	17:25: 0	IR2	52.28	3	IR1=DV,IR2=DH,SKY AZ OFF BY 1 DEG. READ 107 SHOULD BE 106
34.75	-120.57	5/12/76	17:40: 0	IR2	55.22	3	IR1=DV,IR2=SH
34.75	-120.57	5/12/76	17:55: 0	IR2	58.10	3	IR1=SVB,IR2=SH
34.75	-120.57	5/12/76	18:10: 7	IR2	60.91	2	IR1=SVB,IR2=DH,DID NOT HAVE TIME TO NORMALIZE.
34.75	-120.57	5/12/76	18:25: 0	IR2	63.56	3	IR1=DH,IR2=SH
34.75	-120.57	5/12/76	18:40: 0	IR2	66.07	3	IR1=DV,IR2=DH
34.75	-120.57	5/12/76	18:55: 0	IR2	68.37	2	IR1=DV,IR2=SH,SOLAR DISC BLOCK NOT CENTERED FOR SOME PTS.
34.75	-120.57	5/12/76	19:10: 0	IR2	70.38	3	IR1=SVB,IR2=SH
34.75	-120.57	5/12/76	19:25: 0	IR2	71.98	3	IR1=SVB,IR2=DH

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
34.75	-120.57	5/12/76	19:40: 0	IR2	73.08	3	IR1=DH,IR2=SH
34.75	-120.57	5/12/76	19:55: 0	IR2	73.56	3	IR1=DV,IR2=DH
34.75	-120.57	5/12/76	20:10: 0	IR2	73.37	3	IR1=DV,IR2=SH
34.75	-120.57	5/12/76	20:25: 0	IR2	72.54	3	IR1=SVB,IR2=SH
34.75	-120.57	5/12/76	20:40: 0	IR2	71.14	3	IR1=SVB,IR2=DH
34.75	-120.57	5/12/76	20:55: 0	IR2	69.30	3	IR1=DH,IR2=SH
34.75	-120.57	5/12/76	21:10: 0	IR2	67.13	3	IR1=DV,IR2=DH
34.75	-120.57	5/12/76	21:25: 0	IR2	64.70	3	IR1=DV,IR2=DH
34.75	-120.57	5/12/76	21:40: 0	IR2	62.09	3	IR1=SVB,IR2=SH
34.75	-120.57	5/12/76	21:55: 0	IR2	59.35	3	IR1=SVB,IR2=DH
34.75	-120.57	5/12/76	22:11:33	IR2	56.21	2	IR1=SH,IR2=DH,DID NOT HAVE TIME TO NORMALIZE.
34.75	-120.57	5/12/76	22:25: 0	IR2	53.60	3	IR1=DH,IR2=DV
34.75	-120.57	5/12/76	22:40: 0	IR2	50.63	3	IR1=SH,IR2=DV
34.75	-120.57	5/12/76	22:55: 0	IR2	47.62	3	IR1=SH,IR2=SVB
34.75	-120.57	5/12/76	23:10: 0	IR2	44.59	3	IR1=DH,IR2=SVB
34.75	-120.57	5/12/76	23:25: 0	IR2	41.53	3	IR1=SH,IR2=DH
34.75	-120.57	5/12/76	23:40: 0	IR2	38.46	3	IR1=DH,IR2=DV
34.75	-120.57	5/12/76	23:55: 0	IR2	35.39	3	IR1=SH,IR2=DV
34.75	-120.57	5/13/76	0:10: 0	IR2	32.30	3	IR1=SH,IR2=SVB
34.75	-120.57	5/13/76	0:25: 0	IR2	29.22	3	IR1=DH,IR2=SVB
34.75	-120.57	5/13/76	0:40: 0	IR2	26.15	3	IR1=SH,IR2=DH
34.75	-120.57	5/13/76	0:55: 0	IR2	23.09	3	IR1=DH,IR2=DV
34.75	-120.57	5/13/76	1:10: 0	IR2	20.04	3	IR1=SH,IR2=DV,IR2 GRATING FLIP JAMMING. HAD TO HELP IT FLI
34.75	-120.57	5/13/76	1:25: 0	IR2	17.00	2	IR1=SH,IR2=SVB,IR2 HAS TWO BAD PTS.(350+360 NM).
34.75	-120.57	5/13/76	1:40: 0	IR2	13.99	3	IR1=DH,IR2=SVB
34.75	-120.57	5/13/76	1:55: 0	IR2	11.00	3	IR1=SH,IR2=DH
34.75	-120.57	5/13/76	2:10: 0	IR2	8.04	3	IR1=DH,IR2=DV
34.75	-120.57	5/13/76	2:25: 0	IR2	5.11	3	IR1=SH,IR2=DV
34.75	-120.57	5/13/76	2:40: 0	IR2	2.21	1	IR1=SH,IR2=DH,A1=1R,POSS. SUN OBS.(CLDS. OR FOG),IR1=2.55X
32.82	-117.13	5/14/76	21: 3: 4	IR2	68.27	2	IR1=SH,IR2=DV,3 MIN LATE, TOWER UP, WEATHER ON, PRESS+W.D.

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
32.82	-117.13	5/19/76	21:15: 0	IR2	66.08	3	IR1=SH,IR2=SVB,SKY RAD PMT ACTING UP. DARK CURRENT DRIFTIN
32.82	-117.13	5/19/76	21:30: 0	IR2	63.21	3	IR1=DH,IR2=SVB
32.82	-117.13	5/19/76	21:45: 0	IR2	60.26	3	IR1=SH,IR2=DH
32.82	-117.13	5/19/76	22: 0: 0	IR2	57.23	3	IR1=DH,IR2=DV
32.82	-117.13	5/19/76	22:15: 0	IR2	54.16	3	IR1=SH,IR2=DV
32.82	-117.13	5/19/76	22:30: 0	IR2	51.06	3	IR1=SH,IR2=SVB
32.82	-117.13	5/19/76	22:45: 0	IR2	47.94	3	IR1=DH,IR2=SVB
32.82	-117.13	5/19/76	23: 0: 0	IR2	44.80	3	IR1=SH,IR2=DH
32.82	-117.13	5/19/76	23:15: 0	IR2	41.65	3	IR1=DH,IR2=DV,A1=1S,A4=1S, SKY RAD N.G. >780NM.
32.82	-117.13	5/19/76	23:30: 0	IR2	38.50	3	IR1=SH,IR2=DV,A1=2S,A4=2S, SKY RAD N.G. >780NM.
32.82	-117.13	5/19/76	23:45: 0	IR2	35.35	3	IR1=SH,IR2=SVB,A1=4S,A4=6S
32.82	-117.13	5/19/76	24: 0: 0	IR2	32.21	1	IR1=DH,IR2=SVB,A1=2S,A4=8S,B1=2S,B4=3S,POSS. SUN OBS.'CLDS
32.82	-117.13	5/20/76	0:15: 0	IR2	29.07	1	IR1=SH,IR2=DH,A1=7S,A4=6S,B1=3S,B4=3S,POSS. SUN OBS.(CLDS)
32.82	-117.13	5/26/76	19:35: 0	IR2	78.21	2	IR1=DH,IR2=DV,IR1 DATA NG, NO WEATHER DATA, OVERCAST STRAT
32.82	-117.13	5/26/76	19:50: 0	IR2	78.41	3	IR1=SH,IR2=DV
32.82	-117.13	5/26/76	20: 5: 0	IR2	77.67	3	IR1=SH,IR2=SVB
32.82	-117.13	5/26/76	20:20: 0	IR2	76.15	3	IR1=DH,IR2=SVB,TRA NOT INCLUDED.
32.82	-117.13	5/26/76	20:35: 0	IR2	74.07	3	IR1=SH,IR2=DH
32.82	-117.13	5/26/76	20:50: 0	IR2	71.62	3	IR1=DH,IR2=DV
32.82	-117.13	5/26/76	21: 5: 0	IR2	68.93	3	IR1=SH,IR2=DV
32.82	-117.13	5/26/76	21:20: 0	IR2	66.09	3	IR1=SH,IR2=SVB
32.82	-117.13	5/26/76	21:35: 0	IR2	63.14	3	IR1=DH,IR2=SVB
32.82	-117.13	5/26/76	21:50: 0	IR2	60.13	3	IR1=SH,IR2=DH
32.82	-117.13	5/26/76	22: 5: 0	IR2	57.06	3	IR1=DH,IR2=DV, BEGAN HAVING PROBLEM WITH IR1 HI GRATING SH
32.82	-117.13	5/26/76	22:20: 0	IR2	53.96	3	IR1=SH,IR2=DV, CAUTION IR1 HAD 150NM SHIFT.
32.82	-117.13	5/26/76	22:35: 0	IR2	50.83	3	IR1=SH,IR2=SVB, CAUTION IR1 HAD 150NM SHIFT.
32.82	-117.13	5/26/76	22:50: 0	IR2	47.69	3	IR1=DH,IR2=SVB, CAUTION IR1 HAD 140NM SHIFT ON HI GRATIN
32.82	-117.13	5/26/76	23: 5: 0	IR2	44.55	3	IR1=SH,IR2=DH,IR1 N.G. >780NM DUE TO HI GRRATING SHIFT.
32.82	-117.13	5/26/76	23:20: 0	IR2	41.40	2	IR1=DH,IR2=DV,IR1 N.G. >780NM DUE TO HI GRATING SHIFT, POS
32.82	-117.13	5/26/76	23:35: 0	IR2	38.25	2	IR1=SH,IR2=DV, CAUTION IR1 HAD 180NM SHIFT ON HI GRATING

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
32.82	-117.13	5/26/76	23:50: 0	IR2	35.10	2	IR1=SH,IR2=SVB, CAUTION IR1 HAD 210NM SHIFT ON HI GRATIN
32.82	-117.13	5/27/76	0: 5: 0	IR2	31.96	1	IR1=DH,IR2=SVB,A1=5S,A4=5S,B1=4S,B4=4S,IR1 N.G. >780NM DUE
32.82	-117.13	5/27/76	0:20: 0	IR2	28.83	1	IR1=SH,IR2=DH,A1=5S,A4=5S,B1=4S,B4=4S,IR1 N.G. >780NM DUE
32.19	-110.87	6/ 7/76	20:41:30	IR2	70.19	3	IR1=SH,IR2=DV,A2=3C,A3=6C,1 MIN LATE, PRESS + W.D. READING
32.19	-110.87	6/ 7/76	20:55: 0	IR2	67.53	3	IR1=SH,IR2=SVB,A2=3C,A3=6C
32.19	-110.87	6/ 7/76	21:10: 0	IR2	64.49	3	IR1=DH,IR2=SVB,A2=4C,A3=5C
32.19	-110.87	6/ 7/76	21:25: 0	IR2	61.40	2	IR1=SH,IR2=DH,A2=4C,A3=5C,SOLAR DISC BLK NOT COMPLETELY SH
32.19	-110.87	6/ 7/76	21:40: 0	IR2	58.27	3	IR1=DH,IR2=DV,A2=5C,A3=3C
32.19	-110.87	6/ 7/76	21:55: 0	IR2	55.12	3	IR1=SH,IR2=DV,A2=5C,A3=3C
32.19	-110.87	6/ 7/76	22:10: 0	IR2	51.96	3	IR1=SH,IR2=SVB,A2=6C,A3=2C
32.19	-110.87	6/ 7/76	22:25: 0	IR2	48.79	3	IR1=DH,IR2=SVB,A2=6C,A3=2C
32.19	-110.87	6/ 7/76	22:40: 0	IR2	45.61	3	IR1=SH,IR2=DH,A2=6C,A3=2C
32.19	-110.87	6/ 7/76	22:55: 0	IR2	42.44	3	IR1=DH,IR2=DV,A2=6C,A3=2C
32.19	-110.87	6/ 7/76	23:10: 0	IR2	39.28	3	IR1=SH,IR2=DV,A2=6C,A3=2C
32.19	-110.87	6/ 7/76	23:25: 0	IR2	36.12	3	IR1=SH,IR2=SVB,A2=4C,A3=2C
32.19	-110.87	6/ 7/76	23:40: 0	IR2	32.97	3	IR1=DH,IR2=SVB,A2=2C,A3=1C
32.19	-110.87	6/ 7/76	23:55: 0	IR2	29.83	3	IR1=SH,IR2=DH,A2=2C,A3=1C
32.19	-110.87	6/ 8/76	0:10: 0	IR2	26.71	3	IR1=DH,IR2=DV,A2=1C,A3=1C
32.19	-110.87	6/ 8/76	0:25: 0	IR2	23.61	3	IR1=SH,IR2=DV,A2=1C,A3=1C
32.19	-110.87	6/ 8/76	0:40: 0	IR2	20.52	3	IR1=SH,IR2=SVB,A2=1C,A3=1C
32.19	-110.87	6/ 8/76	0:55: 0	IR2	17.47	3	IR1=DH,IR2=SVB,A2=1C,A3=1C
32.19	-110.87	6/ 8/76	1:10: 0	IR2	14.44	3	IR1=SH,IR2=DH,A2=2C
32.19	-110.87	6/ 8/76	1:25: 0	IR2	11.44	3	IR1=DH,IR2=DV,A2=1C
32.19	-110.87	6/ 8/76	1:40: 0	IR2	8.47	3	IR1=SH,IR2=DV,A2=1C
32.19	-110.87	6/ 8/76	1:55: 0	IR2	5.55	3	IR1=DH,IR2=DV,A2=1C
32.19	-110.87	6/ 8/76	2:10: 0	IR2	2.66	3	IR1=SH,IR2=DH,A2=1C,IR1=2.92E-8 AT FINISH (350NM).
32.19	-110.87	6/ 8/76	2:25: 0	IR2	-0.18	1	IR1=SH,IR2=DH,A2=1C,IR1=8.93E-9 AT FINISH (350NM), PARTIAL
32.19	-110.87	6/ 8/76	15:15: 0	IR2	35.09	3	IR1=DH,IR2=SH,TOWER DOWN, PRESS + W.D. READINGS N.G. FOR A
32.19	-110.87	6/ 8/76	15:30: 0	IR2	38.25	3	IR1=DV,IR2=DH,TOWER UP.
32.19	-110.87	6/ 8/76	15:45: 0	IR2	41.41	3	IR1=DV,IR2=SH

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
32.19	-110.87	6/ 8/76	16: 0: 0	IR2	44.58	3	IR1=SVB,IR2=SH
32.19	-110.87	6/ 8/76	16:15: 0	IR2	47.76	3	IR1=SVB,IR2=DH
32.19	-110.87	6/ 8/76	16:30: 0	IR2	50.93	3	IR1=DH,IR2=SH
32.19	-110.87	6/ 8/76	16:45: 0	IR2	54.10	3	IR1=DV,IR2=DH
32.19	-110.87	6/ 8/76	17: 0: 0	IR2	57.25	3	IR1=DV,IR2=SH
32.19	-110.87	6/ 8/76	17:15: 0	IR2	60.39	3	IR1=SVB,IR2=SH
32.19	-110.87	6/ 8/76	17:30: 0	IR2	63.50	3	IR1=SVB,IR2=DH
32.19	-110.87	6/ 8/76	17:45: 0	IR2	66.56	3	IR1=DH,IR2=SH
32.19	-110.87	6/ 8/76	18: 0: 0	IR2	69.55	3	IR1=DV,IR2=DH
32.19	-110.87	6/ 8/76	18:15: 0	IR2	72.44	2	IR1=DV,IR2=SH,SOLAR DISC BLK NOT COMPLETELY SHADOWING IR2
32.19	-110.87	6/ 8/76	18:30: 0	IR2	75.15	3	IR1=SVB,IR2=SH
32.19	-110.87	6/ 8/76	18:45: 0	IR2	77.57	3	IR1=SVB,IR2=DH
32.19	-110.87	6/ 8/76	19: 0: 0	IR2	79.49	3	IR1=DH,IR2=SH
32.19	-110.87	6/ 8/76	19:15: 0	IR2	80.59	3	IR1=DH,IR2=DV,MOVED SOLAR DISC BLK TO IR1.
32.19	-110.87	6/ 8/76	19:30: 0	IR2	80.59	2	IR1=SH,IR2=DV,IR2 AT WRONG AZ (176 DEG) FOR DATA POINTS <7
32.19	-110.87	6/ 8/76	19:45: 0	IR2	79.49	3	IR1=SH,IR2=SVB
32.19	-110.87	6/ 8/76	20:30: 0	IR2	72.44	3	IR1=DH,IR2=DV
32.19	-110.87	6/ 8/76	20:45: 0	IR2	69.56	3	IR1=SH,IR2=DV, CAUTION IR1 HAD 80NM SHIFT ON HI GRATING.
32.19	-110.87	6/ 8/76	21: 0: 0	IR2	66.56	3	IR1=SH,IR2=SVB
32.19	-110.87	6/ 8/76	21:15: 0	IR2	63.50	3	IR1=DH,IR2=SVB
32.19	-110.87	6/ 8/76	21:30: 0	IR2	60.39	3	IR1=SH,IR2=DH
32.19	-110.87	6/ 8/76	21:45: 0	IR2	57.26	3	IR1=DH,IR2=DV
32.19	-110.87	6/ 8/76	22: 0: 0	IR2	54.10	3	IR1=SH,IR2=DV, CAUTION IR1 HAD 120NM SHIFT ON HI GRATING.
32.19	-110.87	6/ 8/76	22:15: 0	IR2	50.94	3	IR1=SH,IR2=SVB
32.19	-110.87	6/ 8/76	22:30: 0	IR2	47.76	3	IR1=DH,IR2=SVB, CAUTION IR1 HAD 90NM SHIFT ON HI GRATING.
32.19	-110.87	6/ 8/76	22:45: 0	IR2	44.59	3	IR1=SH,IR2=DH
32.19	-110.87	6/ 8/76	23: 0: 0	IR2	41.42	2	IR1=DH,IR2=DV,ALL DATA BELOW 500 NM N.G.
32.19	-110.87	6/ 8/76	23:15: 0	IR2	38.26	3	IR1=SH,IR2=DV
32.19	-110.87	6/ 8/76	23:30: 0	IR2	35.10	3	IR1=SH,IR2=SVB
32.19	-110.87	6/ 8/76	23:45: 0	IR2	31.96	3	IR1=DH,IR2=SVB

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
32.19	-110.87	6/ 8/76	24: 0: 0	IR2	28.83	3	IR1=SH,IR2=DH
32.19	-110.87	6/ 9/76	0:15: 0	IR2	25.71	3	IR1=DH,IR2=DV
32.19	-110.87	6/ 9/76	0:30: 0	IR2	22.61	3	IR1=SH,IR2=DV, CAUTION IR1 HAD 70 NM SHIFT ON HI GRATING.
32.19	-110.87	6/ 9/76	0:45: 0	IR2	19.54	3	IR1=SH,IR2=SVB
32.19	-110.87	6/ 9/76	1: 0: 0	IR2	16.50	3	IR1=DH,IR2=SVB
32.19	-110.87	6/ 9/76	1:15: 0	IR2	13.48	3	IR1=SH,IR2=DH
32.19	-110.87	6/ 9/76	1:30: 0	IR2	10.49	3	IR1=DH,IR2=DV
32.19	-110.87	6/ 9/76	15:45: 5	IR2	41.46	2	IR1=DV,IR2=SH,DID NOT HAVE TIME TO NORMALIZE BEFORE THIS A
32.19	-110.87	6/ 9/76	16: 0: 0	IR2	44.62	3	IR1=SVB,IR2=SH
32.19	-110.87	6/ 9/76	16:15: 0	IR2	47.79	3	IR1=SVB,IR2=DH
32.19	-110.87	6/ 9/76	16:30: 0	IR2	50.96	3	IR1=DH,IR2=SH
32.19	-110.87	6/ 9/76	16:45: 0	IR2	54.13	3	IR1=DV,IR2=DH
32.19	-110.87	6/ 9/76	17: 0: 0	IR2	57.29	2	IR1=DV,IR2=SH,SOLAR DISC BLK NOT COMPLETELY SHADOWING IR2
32.19	-110.87	6/ 9/76	17:15: 0	IR2	60.43	3	IR1=SVB,IR2=SH
32.19	-110.87	6/ 9/76	17:30: 0	IR2	63.53	3	IR1=SVB,IR2=DH
32.19	-110.87	6/ 9/76	17:45: 0	IR2	66.60	3	IR1=DH,IR2=SH
32.19	-110.87	6/ 9/76	18: 0: 0	IR2	69.60	3	IR1=DV,IR2=DH
32.19	-110.87	6/ 9/76	18:15: 0	IR2	72.49	3	IR1=DV,IR2=SH
32.19	-110.87	6/ 9/76	18:30: 0	IR2	75.21	3	IR1=SVB,IR2=SH
32.19	-110.87	6/ 9/76	18:45: 0	IR2	77.63	3	IR1=SVB,IR2=DH
32.19	-110.87	6/ 9/76	19: 0: 0	IR2	79.56	3	IR1=DH,IR2=SH
32.19	-110.87	6/ 9/76	19:15: 0	IR2	80.67	3	IR1=DH,IR2=DV,MOVED SOLAR DISC BLK TO IR1.
32.19	-110.87	6/ 9/76	19:30: 0	IR2	80.67	3	IR1=SH,IR2=DV, CAUTION IR1 HAD 170NM SHIFT ON HI GRATING.
32.19	-110.87	6/ 9/76	19:45: 0	IR2	79.56	2	IR1=SH,IR2=SVB,SKYRAD DATA N.G.
32.19	-110.87	6/ 9/76	20: 1:22	IR2	77.43	2	IR1=DH,IR2=SVB,DID NOT HAVE TIME TO NORMALIZE BEFORE THIS
32.19	-110.87	6/ 9/76	20:15: 0	IR2	75.21	3	IR1=SH,IR2=DH
32.19	-110.87	6/ 9/76	20:30: 0	IR2	72.49	3	IR1=DH,IR2=DV, CAUTION IR1 HAD 100NM SHIFT ON HI GRATING.
32.19	-110.87	6/11/76	12:26:36	IR2	1.22	3	IR1=DH,IR2=DH,PRESS + W.D. READINGS N.G. ALL AQS. THIS DAY
32.19	-110.87	6/11/76	12:30: 0	IR2	1.87	3	IR1=DH,IR2=DH,IR1=3.05E-8,IR2=2.14E-8 AT FINISH (350 NM).
32.19	-110.87	6/11/76	12:35: 0	IR2	2.82	3	IR1=DH,IR2=DH,IR1=4.03E-8,IR2=2.85E-8 AT FINISH (350 NM).

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
32.19	-110.87	6/11/76	12:40: 0	IR2	3.77	3	IR1=DH,IR2=DH,IR1=5.07E-8,IR2=3.57E-8 AT FINISH (350 NM).
32.19	-110.87	6/11/76	12:45: 0	IR2	4.73	3	IR1=DH,IR2=DH,IR1=6.32E-8,IR2=4.43E-8 AT FINISH 350NM.
32.19	-110.87	6/11/76	12:50: 0	IR2	5.70	3	IR1=DH,IR2=DH, IR1=7.24E-8, IR2=5.15E-8 AT FINISH 350NM.
32.19	-110.87	6/11/76	12:55: 0	IR2	6.67	3	IR1=DH,IR2=DH, IR1=8.7E-8, IR2=6.02E-8 AT FINISH 350NM.
32.19	-110.87	6/11/76	13: 0: 0	IR2	7.64	3	IR1=3,IR1=DH,IR2=DH, IR1=10.17E-8, IR2=7.1E-8 AT FINISH 35
32.19	-110.87	6/11/76	13: 5: 0	IR2	8.62	3	IR1=DH,IR2=DH, IR1=1.17E-7, IR2=8.06E-8 AT FINISH 350NM.
32.19	-110.87	6/11/76	13:10: 0	IR2	9.61	3	IR1=DH,IR2=DH, IR1=1.3E-7, IR2=9.22E-8 AT FINISH 350NM.
32.19	-110.87	6/11/76	13:25: 0	IR2	12.58	3	IR1=DV,IR2=DH
32.19	-110.87	6/11/76	13:40: 0	IR2	15.59	3	IR1=DV,IR2=SH
32.19	-110.87	6/11/76	13:55: 0	IR2	18.62	2	IR1=SVB,IR2=SH, PHONE TRANSMITTING.
32.19	-110.87	6/11/76	14:10: 0	IR2	21.68	3	IR1=SVB,IR2=DH
32.19	-110.87	6/11/76	14:25: 0	IR2	24.77	3	IR1=DH,IR2=SH
32.19	-110.87	6/11/76	14:40: 0	IR2	27.87	3	IR1=DV,IR2=DH
32.19	-110.87	6/11/76	14:55: 0	IR2	31.00	3	IR1=DV,IR2=SH
32.19	-110.87	6/11/76	15:10: 0	IR2	34.14	3	IR1=SVB,IR2=SH
32.19	-110.87	6/11/76	15:25: 0	IR2	37.29	3	IR1=SVB,IR2=DH
32.19	-110.87	6/11/76	15:40: 0	IR2	40.45	3	IR1=DH,IR2=SH,FIRST 3 IR2 DATA POINTS MAY BE BAD.
32.19	-110.87	6/11/76	15:55: 0	IR2	43.62	3	IR1=DV,IR2=DH
32.19	-110.87	6/11/76	16:10: 0	IR2	46.79	3	IR1=DV,IR2=SH
32.19	-110.87	6/11/76	16:25: 0	IR2	49.96	3	IR1=SVB,IR2=SH
32.19	-110.87	6/11/76	16:40: 0	IR2	53.13	3	IR1=SVB,IR2=DH
32.19	-110.87	6/11/76	16:55: 0	IR2	56.30	3	IR1=DH,IR2=SH
32.19	-110.87	6/11/76	17:10: 0	IR2	59.44	2	IR1=DV,IR2=DH, IR2 DATA BELOW 530NM N.G.
32.19	-110.87	6/11/76	17:25: 0	IR2	62.57	3	IR1=DV,IR2=SH
32.19	-110.87	6/11/76	17:40: 0	IR2	65.65	3	IR1=SVB,IR2=SH
32.19	-110.87	6/11/76	17:55: 0	IR2	68.68	3	IR1=SVB,IR2=DH
32.19	-110.87	6/11/76	18:10: 0	IR2	71.62	3	IR1=DH,IR2=SH
32.19	-110.87	6/11/76	18:25: 0	IR2	74.41	3	IR1=DV,IR2=DH
32.19	-110.87	6/11/76	18:40: 0	IR2	76.97	3	IR1=DV,IR2=SH
32.19	-110.87	6/11/76	18:55: 0	IR2	79.11	3	IR1=SVB,IR2=SH, CAUTION IR1 HAD 90NM SHIFT ON HI GRATING.

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
32.19	-110.87	6/11/76	19:10: 0	IR2	80.55	3	IR1=SVB,IR2=DH
32.19	-110.87	6/11/76	19:25: 0	IR2	80.95	3	IR1=DH,IR2=SH
32.19	-110.87	6/17/76	12:30:30	IR2	1.74	2	IR1=DV,IR2=SH,IR2=6.75E-8 AT FINISH (350 NM),DID NOT HAVE
32.19	-110.87	6/17/76	12:48:55	IR2	5.25	3	IR1=DH,IR2=SH,IR1=3.85E-8,IR2=1.53E-7 AT FINISH (350 NM).
32.19	-110.87	6/17/76	13: 2:33	IR2	7.90	3	IR1=DV,IR2=DH
32.19	-110.87	6/17/76	13:15:56	IR2	10.52	3	IR1=DV,IR2=SH
32.19	-110.87	6/17/76	13:30: 0	IR2	13.32	3	IR1=NO,IR2=SH,IR1 LEFT OUT.
32.19	-110.87	6/17/76	13:45: 0	IR2	16.32	3	IR1=SVB,IR2=DH
32.19	-110.87	6/17/76	14: 0: 0	IR2	19.36	3	IR1=DH,IR2=SH
32.19	-110.87	6/17/76	14:15: 0	IR2	22.42	3	IR1=DV,IR2=DH
32.19	-110.87	6/17/76	14:30: 0	IR2	25.51	3	IR1=DV,IR2=SH
32.19	-110.87	6/17/76	14:45: 0	IR2	28.61	3	IR1=SVB,IR2=SH
32.19	-110.87	6/17/76	15: 0: 0	IR2	31.74	3	IR1=SVB,IR2=DH
32.19	-110.87	6/17/76	15:15: 0	IR2	34.88	3	IR1=DH,IR2=SH
32.19	-110.87	6/17/76	15:30: 0	IR2	38.03	3	IR1=DV,IR2=DH
32.19	-110.87	6/17/76	15:45: 0	IR2	41.19	3	IR1=DV,IR2=SH
32.19	-110.87	6/17/76	16: 0: 0	IR2	44.36	3	IR1=SVB,IR2=SH
32.19	-110.87	6/17/76	16:15: 0	IR2	47.53	3	IR1=SVB,IR2=DH
32.19	-110.87	6/17/76	16:30: 0	IR2	50.70	3	IR1=DH,IR2=SH
32.19	-110.87	6/17/76	16:45: 0	IR2	53.87	3	IR1=DV,IR2=DH
32.19	-110.87	6/17/76	17: 0: 0	IR2	57.04	3	IR1=DV,IR2=SH
32.19	-110.87	6/17/76	17:15: 0	IR2	60.18	3	IR1=SVB,IR2=SH
32.19	-110.87	6/17/76	17:30: 0	IR2	63.30	3	IR1=SVB,IR2=DH
32.19	-110.87	6/17/76	17:45: 0	IR2	66.39	3	IR1=DH,IR2=SH
32.19	-110.87	6/17/76	18: 0: 0	IR2	69.41	3	IR1=DV,IR2=DH
32.19	-110.87	6/17/76	18:15: 0	IR2	72.34	3	IR1=DV,IR2=SH
32.19	-110.87	6/17/76	18:30: 0	IR2	75.12	3	IR1=SVB,IR2=SH
32.19	-110.87	6/17/76	18:45: 0	IR2	77.64	3	IR1=SVB,IR2=DH CAUTION IR1 HAD 70 NM SHIFT HI GRATING
32.19	-110.87	6/17/76	19: 0: 0	IR2	79.70	3	IR1=DH,IR2=SH
32.19	-110.87	6/17/76	19:15: 0	IR2	80.99	3	IR1=DV,IR2=DH

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
32.19	-110.87	6/17/76	19:30: 0	IR2	81.15	3	IR1=DV,IR2=SH,FIRST TWO IR2 POINTS BAD.
35.02	-110.68	6/28/76	12:25: 0	IR2	1.70	2	IR1=DH,IR2=SH,A1=1S,DID NOT HAVE TIME TO NORMALIZE BEFORE
35.02	-110.68	6/28/76	12:40: 0	IR2	4.45	1	IR1=DH,IR2=SH,A1=1S,SKY LAMBDA PROBLEM, REPLACED K-2 CARD.
35.02	-110.68	6/28/76	13:25: 0	IR2	12.96	3	IR1=SVB,IR2=DH,A1=1S
35.02	-110.68	6/28/76	13:40: 0	IR2	15.88	3	IR1=DH,IR2=SH,A1=1S
35.02	-110.68	6/28/76	13:55: 0	IR2	18.82	3	IR1=DV,IR2=DH
35.02	-110.68	6/28/76	14:10: 0	IR2	21.79	3	IR1=DV,IR2=SH
35.02	-110.68	6/28/76	14:25: 0	IR2	24.78	3	IR1=SVB,IR2=SH
35.02	-110.68	6/28/76	14:40: 0	IR2	27.79	3	IR1=SVB,IR2=DH
35.02	-110.68	6/28/76	14:55: 0	IR2	30.82	3	IR1=DH,IR2=SH
35.02	-110.68	6/28/76	15:10: 0	IR2	33.87	3	IR1=DV,IR2=DH
35.02	-110.68	6/28/76	15:25: 0	IR2	36.93	3	IR1=DV,IR2=SH
35.02	-110.68	6/28/76	15:40:11	IR2	40.03	3	IR1=SVB,IR2=SH
35.02	-110.68	6/28/76	15:55: 0	IR2	43.06	3	IR1=SVB,IR2=DH
35.02	-110.68	6/28/76	16:10: 0	IR2	46.13	3	IR1=DH,IR2=SH
35.02	-110.68	6/28/76	16:25: 0	IR2	49.20	3	IR1=DV,IR2=DH
35.02	-110.68	6/28/76	16:40: 0	IR2	52.26	3	IR1=DV,IR2=SH
35.02	-110.68	6/28/76	16:55: 0	IR2	55.30	3	IR1=SVB,IR2=SH
35.02	-110.68	6/28/76	17:10: 0	IR2	58.31	3	IR1=SVB,IR2=DH
35.02	-110.68	6/28/76	17:25: 0	IR2	61.29	3	IIR1=DH,IR2=SH
35.02	-110.68	6/28/76	17:40: 0	IR2	64.21	3	IR1=DV,IR2=DH
35.02	-110.68	6/28/76	17:55: 0	IR2	67.05	3	IR1=DV,IR2=SH,A1=1C,A4=1C
35.02	-110.68	6/28/76	18:10: 0	IR2	69.77	3	IR1=SVB,IR2=SH,A1=3C,A4=1C
35.02	-110.68	6/28/76	18:23:39	IR2	72.10	2	IR1=SVB,IR2=DH,A1=4C,A2=1C,A4=1C, NOT NORMALIZED BEFORE AQ
35.02	-110.68	6/28/76	18:40: 0	IR2	74.60	3	IR1=DH,IR2=SH,A1=5C,A2=1C,A4=1C
35.02	-110.68	6/28/76	18:55: 0	IR2	76.48	3	IR1=DV,IR2=DH,A1=5C,A2=1C,A4=1C
35.02	-110.68	6/28/76	19:10: 0	IR2	77.76	3	IR1=DV,IR2=SH,A1=7C,A3=1C,A4=2C
35.02	-110.68	6/28/76	19:25: 0	IR2	78.24	3	IR1=SVB,IR2=SH,A1=8C,A3=1C,A4=3C
34.92	-92.15	7/14/76	14:23:30	IR2	38.12	3	IR1=DV,IR2=SH ALL DATA IR1 LAMBDA > 1000 NM NO GOOD 1
34.92	-92.15	7/14/76	14:35:23	IR2	40.56	3	IR1=SVB,IR2=SH, NO TIME TO NORMALIZE OK THOUGH

AD-A072 079 EASTMAN KODAK CO ROCHESTER N Y APPARATUS AND OPTICAL DIV F/G 14/2
SPECTRAL RADIOMETRIC MEASUREMENT AND ANALYSIS PROGRAM. VOLUME 2--ETC(U)
APR 79 L G CHRISTENSEN, R SIMMONS, G SCHAUSS

UNCLASSIFIED AWS-TN-79/001-VOL-2 NL

2 OF 2
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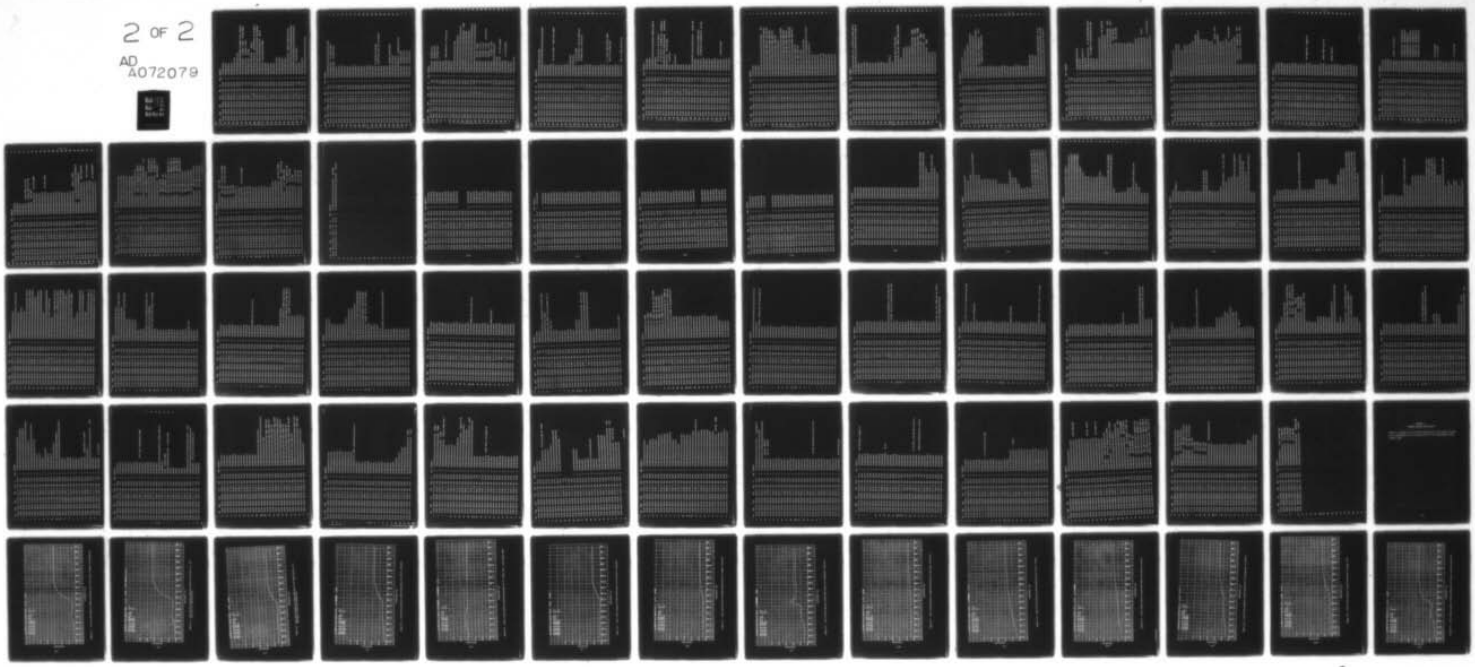

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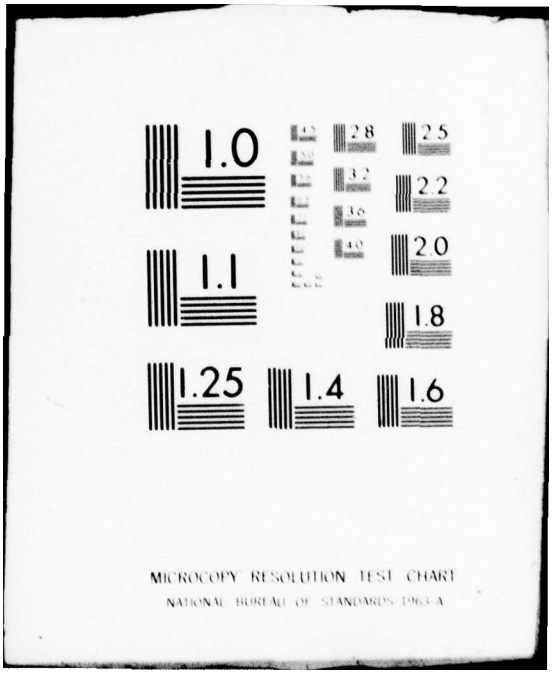
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963-A

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
34.92	-92.15	7/14/76	14:50: 0	IR2	43.55	3	IR1=SVB,IR2=DH
34.92	-92.15	7/14/76	15: 5: 0	IR2	46.62	3	IR1=DH,IR2=SH
34.92	-92.15	7/14/76	15:20: 0	IR2	49.67	3	IR1=DV,IR2=DH
34.92	-92.15	7/14/76	15:35: 0	IR2	52.71	3	IR1=DV,IR2=SH
34.92	-92.15	7/14/76	15:50: 0	IR2	55.72	3	IR1=SVB,IR2=SH,A1=1C
34.92	-92.15	7/14/76	16: 5: 0	IR2	58.70	3	IR1=SVB,IR2=DH,A1=1C,A2=1C
34.92	-92.15	7/14/76	16:23: 7	IR2	62.21	2	IR1=DH,IR2=SH,WAVELENGTHS<500 HAD CLOUDS IN FOV. A1=9C,A2=
34.92	-92.15	7/19/76	11:20: 0	IR2	1.27	1	IR1=DH,IR2=SH,A4=3S IR1(350) = 1.58-8 SUN OBS-CIRRUS
34.92	-92.15	7/19/76	11:35: 0	IR2	4.09	1	IR1=DH,IR2=SH,A4=3S IR1(350) = 3.32-8
34.92	-92.15	7/19/76	11:50: 0	IR2	6.94	1	IR1=DV,IR2=DH,A4=3S SUN OBS
34.92	-92.15	7/19/76	12: 5: 0	IR2	9.84	1	IR1=SVB,IR2=SH,A4=4S,B3=2S SUN OBS
34.92	-92.15	7/19/76	12:18:28	IR2	12.47	1	IR1=SVB,IR2=SH,A3=2S,A4=4S SUN OBS-CIRRUS ,IR1 NO GOOD B
34.92	-92.15	7/19/76	12:35: 0	IR2	15.73	1	IR1=SVB,IR2=DH,A2=4S,A3=4S,A4=7S,B2=4S,B3=6S SUN OBS-CIRR
34.92	-92.15	7/19/76	12:50: 0	IR2	18.72	1	IR1=DH,IR2=SH,A3=4S,A4=7S,B3=6S,B4=8S,C=3S SUN OBS
34.92	-92.15	7/19/76	13:35: 0	IR2	27.80	3	IR1=SVB,IR2=SH CLEAR,CLOUDS HAVE PASSED
34.92	-92.15	7/19/76	13:50: 0	IR2	30.86	3	IR1=SVB,IR2=DH
34.92	-92.15	7/19/76	14: 5: 0	IR2	33.93	3	IR1=DH,IR2=SH
34.92	-92.15	7/19/76	14:20: 0	IR2	37.00	3	IR1=DV,IR2=DH
34.92	-92.15	7/19/76	14:35: 0	IR2	40.07	3	IR1=DV,IR2=SH
34.92	-92.15	7/19/76	14:50: 0	IR2	43.14	3	IR1=SVB,IR2=SH,A3=2S
34.92	-92.15	7/19/76	15: 5: 0	IR2	46.21	3	IR1=SVB,IR2=DH,A3=3S
34.92	-92.15	7/19/76	15:20: 0	IR2	49.25	3	IR1=DH,IR2=SH,A3=2S
34.92	-92.15	7/19/76	15:35: 0	IR2	52.28	3	IR1=DV,IR2=DH,A3=2S
34.92	-92.15	7/19/76	15:50: 0	IR2	55.28	3	IR1=DV,IR2=SH,A2=1S,A3=3S POSSIBLE CLOUDS IN SKY FOV
34.92	-92.15	7/19/76	16: 5: 0	IR2	58.23	2	IR1=SVB,IR2=SH,A1=1S,A2=8S,A3=5S,A4=2S,B2=9S,B3=9S,B4=5S,C
34.92	-92.15	7/19/76	16:20: 0	IR2	61.12	1	IR1=SVB,IR2=DH,A1=1S,A2=8S,A3=5S,A4=2S,B2=9S,B3=9S,B4=5S,C
34.92	-92.15	7/20/76	11:42:11	IR2	5.34	3	IR1=DH,IR2=SH IR1(350)=4.39E-8
34.92	-92.15	7/20/76	11:55: 0	IR2	7.80	3	IR1=DV,IR2=DH
34.92	-92.15	7/20/76	12:10: 0	IR2	10.71	3	IR1=DV,IR2=SH,A3=3S
34.92	-92.15	7/20/76	12:25: 0	IR2	13.65	3	IR1=SVB,IR2=SH,A2=2S,A3=6S,B1=2S,B2=4S,B3=6S

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
34.92	-92.15	7/20/76	12:40: 0	IR2	16.63	3	IR1=SVB,IR2=DH,A1=3S,A2=6S,A3=2S,A4=7S,B2=2S
34.92	-92.15	7/21/76	11:30: 0	IR2	2.92	3	IR1=DH,IR2=SH,A2=2S IR1 (350)=2.68E-8
34.92	-92.15	7/21/76	11:45: 0	IR2	5.77	3	IR1=DV,IR2=DH,A3=1S IR1(350)=2.95E-8
34.92	-92.15	7/21/76	12: 0: 0	IR2	8.66	3	IR1=DV,IR2=SH
34.92	-92.15	7/21/76	12:15: 0	IR2	11.58	3	IR1=SVB,IR2=SH
34.92	-92.15	7/21/76	12:30: 0	IR2	14.54	3	IR1=SVB,IR2=DH
34.92	-92.15	7/21/76	12:45: 0	IR2	17.52	3	IR1=DH,IR2=SH
34.92	-92.15	7/21/76	13: 0: 0	IR2	20.53	3	IR1=DV,IR2=DH
34.92	-92.15	7/21/76	13:15: 0	IR2	23.55	3	IR1=DV,IR2=SH
34.92	-92.15	7/21/76	13:30: 0	IR2	26.60	3	IR1=SVB,IR2=SH
34.92	-92.15	7/21/76	13:45: 0	IR2	29.65	3	IR1=SVB,IR2=DH
34.92	-92.15	7/21/76	14: 0: 0	IR2	32.72	3	IR1=DH,IR2=SH
34.92	-92.15	7/21/76	14:15: 0	IR2	35.79	3	IR1=DV,IR2=DH
34.92	-92.15	7/21/76	14:30: 0	IR2	38.86	3	IR1=DV,IR2=SH
34.92	-92.15	7/21/76	14:45: 0	IR2	41.93	3	IR1=SVB,IR2=SH
34.92	-92.15	7/21/76	15: 0: 0	IR2	45.00	3	IR1=SVB,IR2=DH
34.92	-92.15	7/21/76	15:15: 0	IR2	48.05	3	IR1=DH,IR2=SH
34.92	-92.15	7/21/76	15:30: 0	IR2	51.08	3	IR1=DV,IR2=DH IR2 GRATING FLIP BINDING
34.92	-92.15	7/21/76	15:45: 0	IR2	54.08	3	IR1=DV,IR2=SH STOPPED AFTER THIS AQ TO FIX GRATING
34.92	-92.15	7/21/76	16:30: 0	IR2	62.77	3	IR1=DH,IR2=SH
34.92	-92.15	7/21/76	16:45: 0	IR2	65.49	3	IR1=DV,IR2=DH
34.92	-92.15	7/21/76	17: 0: 0	IR2	68.05	3	IR1=DV,IR2=SH
34.92	-92.15	7/21/76	17:15: 0	IR2	70.39	2	IR1=SVB,IR2=SH POSSIBLE SUN OBS-CIRRUS
34.92	-92.15	7/21/76	17:30: 0	IR2	72.43	3	IR1=SVB,IR2=DH A4=1C,B4=2C
34.92	-92.15	7/21/76	17:45: 0	IR2	74.04	3	IR1=DH,IR2=SH,A4=2C,B4=1C
34.92	-92.15	7/21/76	18: 0: 9	IR2	75.08	3	IR1=DV,IR2=DH,A2=2C,A3=3C SCATTERED PUFFY CUM
33.95	-83.32	8/ 4/76	11:10: 0	IR2	3.64	3	IR1=DH,IR2=SH IR1(350)=3.32-8
33.95	-83.32	8/ 4/76	11:15: 0	IR2	4.63	3	IR1=DH,IR2=SH IR1(350)=4.11-8
33.95	-83.32	8/ 4/76	11:20: 0	IR2	5.62	3	IR1=DH,IR2=SH IR1(350)=4.89-8
33.95	-83.32	8/ 4/76	11:25: 0	IR2	6.61	3	IR1=DH,IR2=SH IR1(350)=5.64-8

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
33.95	-83.32	8/ 4/76	11:30: 0	IR2	7.61	3	IR1=DH,IR2=SH IR1(350)=6.6-8
33.95	-83.32	8/ 4/76	11:35: 0	IR2	8.61	3	IR1=DH,IR2=SH IR1(350)=7.62-8
33.95	-83.32	8/ 4/76	11:40: 0	IR2	9.61	3	IR1=DH,IR2=SH IR1(350)=8.72-8
33.95	-83.32	8/ 4/76	11:55: 0	IR2	12.64	3	IR1=DV,IR2=DH
33.95	-83.32	8/ 4/76	12:10: 0	IR2	15.69	3	IR1=DV,IR2=SH
33.95	-83.32	8/ 4/76	12:25: 0	IR2	18.75	3	IR1=SVB,IR2=SH SHADOW BOARD OFF A LITTLE ON IR2
33.95	-83.32	8/ 4/76	12:40: 0	IR2	21.84	3	IR1=SVB,IR2=DH
33.95	-83.32	8/ 4/76	12:55: 0	IR2	24.93	3	IR1=DH,IR2=SH
33.95	-83.32	8/ 4/76	13:10: 0	IR2	28.03	3	IR1=DV,IR2=DH,A1=2C,A2=1C,A3=1C,A4=1C
33.95	-83.32	8/ 4/76	13:25: 0	IR2	31.14	3	IR1=DV,IR2=SH,A1=2C,A2=2C,A3=1C,A4=2C,B4=2C
33.95	-83.32	8/ 4/76	13:40: 0	IR2	34.25	1	IR1=SVB,IR2=SH,A1=2C,A2=2C,A3=1C,A4=2C,B2=1C,B4=1C,C=1C
33.95	-83.32	8/ 4/76	13:55: 0	IR2	37.36	1	IR1=SVB,IR2=DH,A1=2C,A2=1C,A3=1C,A4=2C,B3=1C,B4=1C CLOUD
33.95	-83.32	8/ 4/76	14:10: 0	IR2	40.45	2	IR1=DH,IR2=SH,A1=1C,A2=1C,A3=1C,A4=1C,B3=1C,B4=2C
33.95	-83.32	8/ 4/76	14:25: 0	IR2	43.54	2	IR1=DH,IR2=SH,A1=1C,A2=1C,A3=1C,A4=1C,B3=1C,B4=2C
33.95	-83.32	8/ 4/76	14:43:34	IR2	47.32	2	IR1=DH,IR2=SH,A1=2C,A2=2C,A3=1C,A4=2C,B1=1C,B2=1C,B3=1C,C=
33.95	-83.32	8/ 4/76	14:57:13	IR2	50.08	2	IR1=SVB,IR2=SH,A1=1C,A2=2C,A3=1C,A4=1C,B1=1C,B2=1C,B3=1C,C
33.95	-83.32	8/ 6/76	11:15:59	IR2	4.52	0	IR1=DH,IR2=SH, SUN OBS - CLOUDS
33.95	-83.32	8/ 6/76	11:20:14	IR2	5.36	3	IR1=DH,IR2=SH, IR1(350) = 4.61-8
33.95	-83.32	8/ 6/76	11:24:45	IR2	6.26	3	IR1=DH,IR2=SH, IR1(350) = 5.54-8
33.95	-83.32	8/ 6/76	11:30: 0	IR2	7.31	3	IR1=DH,IR2=SH, IR1(350) = 6.36-8 SKY DATA N.G.
33.95	-83.32	8/ 6/76	11:35: 0	IR2	8.31	3	IR1=DH,IR2=SH, IR1(350) = 7.32-8
33.95	-83.32	8/ 6/76	11:40: 0	IR2	9.31	3	IR1=DH,IR2=SH, IR1(350) = 8.38-8
33.95	-83.32	8/ 6/76	11:55: 0	IR2	12.35	3	IR1=DV,IR2=DH,A1=1S-2R,A2=2S,A3=3S
33.95	-83.32	8/ 6/76	13:10: 0	IR2	27.76	3	IR1=DV,IR2=DH,A1=2C
33.95	-83.32	8/ 6/76	13:25: 0	IR2	30.87	3	IR1=DV,IR2=SH,A1=2C SKY DATA NO GOOD?
33.95	-83.32	8/ 6/76	13:40: 0	IR2	33.98	3	IR1=SVB,IR2=SH
33.95	-83.32	8/ 6/76	13:55: 0	IR2	37.08	3	IR1=SVB,IR2=DH, SKY DATA NO GOOD?
33.95	-83.32	8/ 6/76	14:10: 0	IR2	40.18	3	IR1=DH,IR2=SH
33.95	-83.32	8/ 6/76	14:25: 0	IR2	43.25	3	IR1=DV,IR2=DH
33.95	-83.32	8/ 6/76	14:40: 0	IR2	46.31	3	IR1=DV,IR2=SH,A1=1C

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
33.95	-83.32	8/ 6/76	14:55: 0	IR2	49.33	3	IR1=SVB,IR2=SH,A3=1R,A4=1R,B4=1R
33.95	-83.32	8/ 6/76	15:10: 0	IR2	52.31	2	IR1=SVB,IR2=DH,A1=1R,A2=3R,A3=8R,A4=2C-1R,B1=1R,B2=9R,B3=9
33.95	-82.68	8/10/76	14:30: 0	IR2	44.38	3	IR1=DV,IR2=DH
33.95	-82.68	8/10/76	14:45: 0	IR2	47.40	3	IR1=DV,IR2=SH
33.95	-82.68	8/10/76	15: 0: 0	IR2	50.38	3	IR1=SVB,IR2=SH
33.95	-82.68	8/10/76	15:15: 0	IR2	53.31	3	IR1=SVB,IR2=DH SKY DATA NO GOOD - ERRATIC DARK CURRENT
33.95	-82.68	8/10/76	15:30: 0	IR2	56.16	3	IR1=DH,IR2=SH
33.95	-82.68	8/10/76	15:45: 0	IR2	58.91	3	IR1=DV,IR2=DH
33.95	-82.68	8/10/76	16: 0: 0	IR2	61.54	3	IR1=DV,IR2=SH
33.95	-82.68	8/10/76	16:15: 0	IR2	64.00	3	IR1=SVB,IR2=SH
33.95	-82.68	8/10/76	16:30: 0	IR2	66.23	3	IR1=SVB,IR2=DH
33.95	-82.68	8/10/76	16:45: 0	IR2	68.18	3	IR1=DH,IR2=SH,A1=1C,A4=1C
33.95	-82.68	8/10/76	17: 0: 0	IR2	69.74	3	IR1=DV,IR2=DH,A1=1C,A4=1C
33.95	-83.32	8/11/76	11: 0: 0	IR2	0.73	3	IR1=DH,IR2=SH IR2 DATA NO GOOD
33.95	-83.32	8/11/76	11:15: 0	IR2	3.71	3	IR1=DH,IR2=SH IR1(350)=3.73E-8 FIRST TRA POINTS N.G.
33.95	-83.32	8/11/76	11:30: 0	IR2	6.71	3	IR1=DH,IR2=SH IR1(350)=3.55E-8 IR1 DATA N.G.
33.95	-83.32	8/11/76	11:45: 0	IR2	9.75	3	IR1=DV,IR2=SH,
33.95	-83.32	8/11/76	12: 0: 0	IR2	12.80	3	IR1=SVB,IR2=SH
33.95	-83.32	8/11/76	12:15:44	IR2	16.02	3	IR1=SVB,IR2=DH
33.95	-83.32	8/11/76	12:30: 0	IR2	18.96	3	IR1=DH,IR2=SH
33.95	-83.32	8/11/76	12:45: 0	IR2	22.06	3	IR1=DV,IR2=DH
33.95	-83.32	8/11/76	13: 0: 0	IR2	25.16	3	IR1=DV,IR2=SH
33.95	-83.32	8/11/76	13:15: 0	IR2	28.27	3	IR1=SVB,IR2=SH
33.95	-83.32	8/11/76	13:30: 0	IR2	31.38	3	IR1=SVB,IR2=DH
33.95	-83.32	8/11/76	13:43:32	IR2	34.18	3	IR1=DH,IR2=SH, START EARLY, ANGLES SLIGHTLY WRONG
33.95	-83.32	8/11/76	14: 0: 0	IR2	37.58	3	IR1=DV,IR2=DH, FIRST FEW TRA POINTS N.G.
33.95	-83.32	8/11/76	14:15: 0	IR2	40.65	3	IR1=DV,IR2=SH
33.95	-83.32	8/11/76	14:30: 0	IR2	43.71	3	IR1=SVB,IR2=SH
33.95	-83.32	8/11/76	14:45: 0	IR2	46.73	3	IR1=SVB,IR2=DH
33.95	-83.32	8/11/76	14:58:32	IR2	49.42	3	IR1=DH,IR2=SH, FIRST FEW POINTS FROM IR2 N.G.

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
33.95	-83.32	8/11/76	15:15: 0	IR2	52.44	3	IR1=DV,IR2=DH
33.95	-83.32	8/11/76	15:30: 0	IR2	55.49	3	IR1=DV,IR2=SH
33.95	-83.32	8/11/76	15:45: 0	IR2	58.26	3	IR1=SVB,IR2=SH,A2=1C,A3=1C,A4=2C,B1=1C, POSSIBLE CLOUD IN
33.95	-83.32	8/11/76	16: 0: 0	IR2	60.90	3	IR1=SVB,IR2=DH
33.95	-83.32	8/12/76	10:59: 0	IR2	-0.43	1	IR2=DH NO IR1 ALL DAY -- NO TRA THIS AQ
33.95	-83.32	8/12/76	11: 0: 0	IR2	0.56	1	IR2=DV NO TRA THIS AQ -- SKY(350)=7.7-11 IR2(350)=1.6-
33.95	-83.32	8/12/76	11:15: 0	IR2	3.54	1	IR2=DH,A1=9C,A2=7C,A3=7C,A4=8C,B1=2C,B4=2C SUN OBS CLOU
33.95	-83.32	8/12/76	11:30: 0	IR2	6.55	1	IR2=DH,A1=4C,A4=4C SUN OBS CLOUDS
33.95	-83.32	8/12/76	11:45: 0	IR2	9.58	3	IR2=DH NO SUN OBS
33.95	-83.32	8/12/76	12: 0:19	IR2	12.71	3	IR2=DH
33.95	-83.32	8/12/76	12:15: 0	IR2	15.72	3	IR2=DH,A1=3C,A2=2C
33.95	-83.32	8/12/76	12:30: 0	IR2	18.80	3	IR2=DH
33.95	-83.32	8/12/76	12:45: 0	IR2	21.90	3	IR2=DH
33.95	-83.32	8/12/76	13: 0: 0	IR2	25.01	3	IR2=DH
33.95	-83.32	8/12/76	13:15:31	IR2	28.23	3	IR2=DH
33.95	-83.32	8/12/76	13:30: 0	IR2	31.23	3	IR2=DH
33.95	-83.32	8/12/76	13:45: 0	IR2	34.33	1	IR2=DH,A1=5C,A2=3C,A4=5C,B1=3C,B3=3C,B4=3C SUN OBS CLOU
33.95	-83.32	8/13/76	11:15:28	IR2	3.46	2	IR1=DH,IR2=SH
33.95	-83.32	8/13/76	11:30: 0	IR2	6.38	3	IR1=DV,IR2=DH IR1(350)=4.94-8 IR2(350)=1.84-7
33.95	-83.32	8/13/76	11:45: 0	IR2	9.42	3	IR1=DV,IR2=SH IR1(350)=8.35-8 IR2(350)=6.0-9 SKY DATA
33.95	-83.32	8/13/76	12:15: 0	IR2	15.55	3	IR1=SVB,IR2=DH
33.95	-83.32	8/13/76	12:30: 0	IR2	18.65	3	IR1=DH,IR2=SH
33.95	-83.32	8/13/76	12:45: 0	IR2	21.75	3	IR1=DV,IR2=DH
33.95	-83.32	8/13/76	13: 0: 0	IR2	24.85	3	IR1=DV,IR2=SH
33.95	-83.32	8/13/76	13:30: 0	IR2	31.07	3	IR1=SVB,IR2=DH
33.95	-83.32	8/13/76	13:45: 0	IR2	34.17	3	IR1=DH,IR2=SH
33.95	-83.32	8/13/76	14: 0: 0	IR2	37.26	2	IR1=DV,IR2=DH IR2 DATA NO GOOD
33.95	-83.32	8/13/76	14:14:19	IR2	40.19	3	IR1=DV,IR2=SH
33.95	-83.32	8/13/76	14:30: 0	IR2	43.38	3	IR1=SVB,IR2=SH
33.95	-83.32	8/13/76	14:45: 0	IR2	46.39	3	IR1=SVB,IR2=DH

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
33.95	-83.32	8/13/76	15: 0: 0	IR2	49.36	3	IR1=DH,IR2=SH
33.95	-83.32	8/13/76	15:15: 0	IR2	52.27	3	IR1=DV,IR2=DH
33.95	-83.32	8/13/76	15:30: 0	IR2	55.11	3	IR1=DV,IR2=SH
33.95	-83.32	8/13/76	15:45: 0	IR2	57.85	0	IR1=SVB,IR2=SH,A1=1C,A2=2C,A3=2C,A4=3C,B1=1C,B2=1C SUN
33.95	-83.32	8/13/76	16: 0: 0	IR2	60.46	2	IR1=SVB,IR2=DH,A1=3C,A2=2C,A3=3C,A4=5C,B1=4C,B2=2C,B3=1C,B
29.73	-85.03	8/22/76	12:25: 0	IR2	14.73	1	IR1=SVB,IR2=DH,SCATTERED CIRRUS THRUOUT SKY. POSS SUN OBS.
29.73	-85.03	8/22/76	12:40: 0	IR2	17.98	2	IR1=DH,IR2=SH,A1=2R,A3=6R,A4=2R,THIN CIRRUS ACROSS SKY.
29.73	-85.03	8/22/76	12:55: 0	IR2	21.23	2	IR1=DV,IR2=DH,A1=2R,A3=6R,A4=2R,THIN CIRRUS ACROSS SKY.
29.73	-85.03	8/22/76	13:10: 0	IR2	24.48	2	IR1=DV,IR2=SH,A1=2R,A4=2R,THIN CIRRUS ACROSS SKY.
29.73	-85.03	8/22/76	13:25: 0	IR2	27.74	2	IR1=SVB,IR2=SH,A1=2R,A4=2R,THIN CIRRUS SKY.
29.73	-85.03	8/22/76	13:40: 0	IR2	30.99	2	IR1=SVB,IR2=DH,A1=3R,A2=2R,A3=2R,A4=3R,THIN CIRRUS ACROSS
29.73	-85.03	8/22/76	13:55: 0	IR2	34.23	2	IR1=DH,IR2=SH,A1=2R,A2=1R,A4=2R,THIN CIRRUS ACROSS SKY.
29.73	-85.03	8/22/76	14:10: 0	IR2	37.46	2	IR1=DV,IR2=DH,A1=2R,A2=1C,A4=2R,THIN CIRRUS ACROSS SKY.
29.73	-85.03	8/22/76	14:25: 0	IR2	40.67	2	IR1=DV,IR2=SH,A2=1C,A4=2R,FIRST FEW IR2 PTS. BAD,THIN CIRR
29.73	-85.03	8/22/76	14:40: 0	IR2	43.85	2	IR1=SVB,IR2=SH,A1=2R,A4=1R,B4=1R,THIN CIRRUS ACROSS SKY, P
29.73	-85.03	8/22/76	14:55: 0	IR2	47.00	2	IR1=SVB,IR2=DH,THIN CIRRUS ACROSS SKY.
29.73	-85.03	8/22/76	15:10: 0	IR2	50.11	2	IR1=DH,IR2=SH,THIN CIRRUS ACROSS SKY.
29.73	-85.03	8/22/76	15:25: 0	IR2	53.15	3	IR1=DV,IR2=DH,A2=1C,A3=1C,A4=1C
29.73	-85.03	8/22/76	15:40: 0	IR2	56.13	3	IR1=DV,IR2=SH,A1=1C,A2=3C,A3=2C,A4=1C,B2=1C
29.73	-85.03	8/22/76	15:55: 0	IR2	59.00	1	IR1=SVB,IR2=SH,CUMULO-PUFFY SCATERRED ABOUT SKY. SKY FOV N
29.73	-85.03	8/22/76	21:12:44	IR2	38.17	1	IR1=DH,IR2=SVB,A2=2C,A3=1C,IR1+IR2 N.G.
29.73	-85.03	8/22/76	21:26:13	IR2	35.27	3	IR1=SH,IR2=DH,A2=2C,A3=1C
29.73	-85.03	8/22/76	21:40: 0	IR2	32.29	3	IR1=DH,IR2=DV,A2=1C,A3=1C
29.73	-85.03	8/22/76	21:55: 0	IR2	29.04	3	IR1=SH,IR2=DV,A2=1C,A3=1C
29.73	-85.03	8/22/76	22:10: 0	IR2	25.79	3	IR1=SH,IR2=SVB,A2=1C,A3=1C
29.73	-85.03	8/22/76	22:25: 0	IR2	22.53	3	IR1=DH,IR2=SVB,A3=2R,A4=2R
29.73	-85.03	8/22/76	22:40: 0	IR2	19.27	3	IR1=SH,IR2=DH,A3=2R,A4=2R
29.73	-85.03	8/22/76	22:55: 0	IR2	16.02	3	IR1=DH,IR2=DV,A3=2R,A4=2R
29.73	-85.03	8/22/76	23:10: 0	IR2	12.78	3	IR1=SH,IR2=DV,A3=2R,A4=2R
29.73	-85.03	8/22/76	23:25: 0	IR2	9.54	3	IR1=DH,IR2=DV,A3=2R,A4=2R

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
29.73	-85.03	8/22/76	23:40: 0	IR2	6.32	2	IR1=SH,IR2=DV,IR1(350)=4.12-8, IR2(350)=8.72-8,POSS SUN OB
29.73	-85.03	8/22/76	23:55: 0	IR2	3.12	2	IR1=SH,IR2=DV,IR1(350)=1.81-8,IR2(350)=3.38-8, SUN OBS CIR
29.73	-85.03	8/23/76	12:55: 0	IR2	21.07	3	IR1=DV,IR2=DH
29.73	-85.03	8/23/76	13:10: 0	IR2	24.33	3	IR1=DV,IR2=SH
29.73	-85.03	8/23/76	13:25: 0	IR2	27.58	3	IR1=SVB,IR2=SH
29.73	-85.03	8/23/76	13:40: 0	IR2	30.83	3	IR1=SVB,IR2=DH
29.73	-85.03	8/23/76	13:55: 0	IR2	34.07	3	IR1=DH,IR2=SH
29.73	-85.03	8/23/76	14:10: 0	IR2	37.29	3	IR1=DV,IR2=DH
29.73	-85.03	8/23/76	14:25: 0	IR2	40.50	3	IR1=DV,IR2=SH
29.73	-85.03	8/23/76	14:40: 0	IR2	43.68	3	IR1=SVB,IR2=SH
29.73	-85.03	8/23/76	14:55: 0	IR2	46.82	3	IR1=SVB,IR2=DH
29.73	-85.03	8/23/76	15:10: 0	IR2	49.92	3	IR1=DH,IR2=SH
29.73	-85.03	8/23/76	15:25: 0	IR2	52.96	3	IR1=DV,IR2=DH
29.73	-85.03	8/23/76	15:40: 0	IR2	55.92	2	IR1=DV,IR2=SH,IR2 N.G.
29.73	-85.03	8/23/76	15:55: 0	IR2	58.78	3	IR1=SVB,IR2=SH
29.73	-85.03	8/23/76	16:10: 7	IR2	61.52	3	IR1=SVB,IR2=DH,SKIPPED ONE AQ TO SWITCH GEN.
29.73	-85.03	8/23/76	16:25: 0	IR2	64.05	3	IR1=ND,IR2=SH,A2=1C,IR1 LEFT OUT. CUMULUS CLOUDS BEGINNING
29.73	-85.03	8/23/76	16:40: 0	IR2	66.36	3	IR1=DV,IR2=DH,A2=1C
29.73	-85.03	8/23/76	16:55: 0	IR2	68.35	3	IR1=DV,IR2=SH,A1=1C,A2=1C,A4=1C
29.73	-85.03	8/23/76	17:10: 0	IR2	69.93	3	IR1=SVB,IR2=SH,A1=4C,A2=6C,A4=4C
29.73	-85.03	8/23/76	17:25: 0	IR2	70.99	3	IR1=SVB,IR2=DH,A1=7C,A2=8C,A4=4C
35.03	-106.95	9/12/76	13:26:19	IR2	6.67	0	IR1=DV,IR2=DH,A1=4R,1S,A2=2S,2R,A3=1R,A4=4R, CIRRUS
35.03	-106.95	9/12/76	13:40: 0	IR2	9.47	0	IR1=DV,IR2=SH,A1=3R,1S,A2=2R,2S,A3=1R,A4=3R, CIRRUS
35.03	-106.95	9/12/76	13:55: 0	IR2	12.53	0	IR1=SVB,IR2=SH,A1=2R,1S,A2=2R,1S,A3=1R,A4=2R, CIRRUS
35.03	-106.95	9/12/76	14:10: 0	IR2	15.59	0	IR1=SVB,IR2=DH,A1=3R,1S,A2=1R,1S,A4=3R, CIRRUS
35.03	-106.95	9/12/76	14:25: 0	IR2	18.63	0	IR1=DH,IR2=SH,A1=4R,1S,A2=1R,1S,A4=3R, CIRRUS
35.03	-106.95	9/12/76	14:40: 0	IR2	21.66	0	IR1=DV,IR2=DH,A1=4R,A2=1R,A4=3R, CIRRUS
35.03	-106.95	9/12/76	14:55: 0	IR2	24.66	3	IR1=DV,IR2=SH,A1=2R,A4=1R
35.03	-106.95	9/12/76	15:10: 0	IR2	27.63	3	IR1=SVB,IR2=SH,A1=1R,A4=1R
35.03	-106.95	9/12/76	15:25: 0	IR2	30.56	3	IR1=SVB,IR2=DH,A1=1R,A4=1R

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
35.03	-106.95	9/12/76	15:40: 0	IR2	33.44	3	IR1=DH,IR2=SH,A1=1R,A4=1R
35.03	-106.95	9/12/76	15:55: 0	IR2	36.27	3	IR1=DV,IR2=DH,A1=5R,A3=2C,A4=1R,1C
35.03	-106.95	9/12/76	16:10: 0	IR2	39.03	3	IR1=DV,IR2=SH,A1=5R,A3=2C,A4=1R,1C,B3=1C
35.03	-106.95	9/12/76	16:25: 0	IR2	41.71	3	IR1=SVB,IR2=SH,A1=5R,A2=2C,A3=2C,A4=4R,1C,B1=2C,B3=1C
35.03	-106.95	9/12/76	16:40: 0	IR2	44.29	3	IR1=SVB,IR2=DH,A1=6R,A2=3C,A4=5R,B1=4C,B2=1C,B4=1R
35.03	-106.95	9/12/76	17:10: 0	IR2	49.07	1	IR1=DV,IR2=DH,A1=4R,A2=6C,A3=5C,A4=3R,B1=3R,B2=1C,B4=3R,C=
35.03	-106.95	9/13/76	13:10:21	IR2	3.39	3	IR1=DH,IR2=SH, IR1(350)=2.62-8 IR2(350)=10.60-8 SKY R
35.03	-106.95	9/13/76	13:25: 0	IR2	6.39	3	IR1=DV,IR2=DH, IR1(350)=5.59E-8 IR2(350)=2.10-7
35.03	-106.95	9/13/76	13:40: 0	IR2	9.46	3	IR1=DV,IR2=SH
35.03	-106.95	9/13/76	13:55: 0	IR2	12.52	3	IR1=SVB,IR2=SH
35.03	-106.95	9/13/76	14:10: 0	IR2	15.57	3	IR1=SVB,IR2=DH
35.03	-106.95	9/13/76	14:25: 0	IR2	18.61	3	IR1=DH,IR2=SH
35.03	-106.95	9/13/76	14:40: 0	IR2	21.63	3	IR1=DV,IR2=DH
35.03	-106.95	9/13/76	14:55: 0	IR2	24.63	3	IR1=DV,IR2=SH
35.03	-106.95	9/13/76	15:10: 0	IR2	27.59	3	IR1=SVB,IR2=SH
35.03	-106.95	9/13/76	15:25: 0	IR2	30.51	3	IR1=SVB,IR2=DH
35.03	-106.95	9/13/76	15:40: 0	IR2	33.39	3	IR1=DH,IR2=SH
35.03	-106.95	9/13/76	15:55: 0	IR2	36.20	3	IR1=DV,IR2=DH
35.03	-106.95	9/13/76	16:10: 0	IR2	38.95	3	IR1=DV,IR2=SH
35.03	-106.95	9/13/76	16:25: 0	IR2	41.61	3	IR1=SVB,IR2=SH
35.03	-106.95	9/13/76	16:40: 0	IR2	44.18	3	IR1=SVB,IR2=DH
35.03	-106.95	9/13/76	16:55: 0	IR2	46.62	3	IR1=DH,IR2=SH
35.03	-106.95	9/13/76	17:10: 0	IR2	48.92	3	IR1=DV,IR2=DH
35.03	-106.95	9/13/76	17:25: 0	IR2	51.04	3	IR1=DV,IR2=SH
35.03	-106.95	9/13/76	17:40: 0	IR2	52.97	3	IR1=SVB,IR2=SH,A3=1R,A4=1C
35.03	-106.95	9/13/76	17:55: 0	IR2	54.67	3	IR1=SVB,IR2=DH,A3=1R,A4=1C
35.03	-106.95	9/13/76	18:10: 0	IR2	56.09	3	IR1=DH,IR2=SH,A4=1C,B4=1C
35.03	-106.95	9/13/76	18:25: 0	IR2	57.20	1	IR1=DV,IR2=DH,A2=1C,A3=1C,A4=1C,B2=1C,B3=1C,B4=2C, SKY RA
35.03	-106.95	9/13/76	18:40: 0	IR2	57.98	1	IR1=DV,IR2=SH,A2=1C,A3=1C,A4=2C,B2=2C,B3=1C,B4=2C, SKY RAD
35.03	-106.95	9/13/76	18:55: 0	IR2	58.38	1	IR1=SVB,IR2=SH,A1=2C,A2=2C,A3=2C,A4=2C,B1=2C, SKY RAD IS L

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
35.05	-106.57	9/14/76	13:25: 0	IR2	6.48		
35.05	-106.57	9/14/76	13:40: 0	IR2	9.55		
35.05	-106.57	9/14/76	13:55: 0	IR2	12.61		
35.05	-106.57	9/14/76	14:10: 0	IR2	15.66	3	IR1=SVB,IR2=DH,A3=1R,B2=1R
35.05	-106.57	9/14/76	14:40: 0	IR2	21.71	3	IR1=DV,IR2=DH
35.05	-106.57	9/14/76	14:55: 0	IR2	24.69	3	IR1=DV,IR2=SH,A2=4R,A3=3R
35.05	-106.57	9/14/76	15:10: 0	IR2	27.65	3	IR1=SVB,IR2=SH
35.05	-106.57	9/14/76	15:25: 0	IR2	30.56	2	IR1=SVB,IR2=DH,A3=1R,A4=3R, SKY RAD NO GOOD ABOVE 820 NM
35.05	-106.57	9/14/76	15:40: 0	IR2	33.42	2	IR1=DH,IR2=SH, IR1 SHADOWED BY PERSON ON ROOF FOR FIRST
35.05	-106.57	9/14/76	15:55: 0	IR2	36.22	3	IR1=DV,IR2=DH
35.05	-106.57	9/14/76	16:10: 0	IR2	38.95	3	IR1=DV,IR2=SH
35.05	-106.57	9/14/76	16:25: 0	IR2	41.59	3	IR1=SVB,IR2=SH,A1=1C,A2=7R,A3=1R,A4=1C
35.05	-106.57	9/14/76	16:40: 0	IR2	44.13	3	IR1=SVB,IR2=DH,A1=1C,8R,A2=8R,A3=9R,A4=9R, VERY THIN CIRR
35.05	-106.57	9/14/76	16:55: 0	IR2	46.55	3	IR1=DH,IR2=SH,A1=1C,8R,A2=8R,A3=9R,A4=9R
35.03	-106.57	9/19/76	13:17: 4	IR2	4.16	0	IR1=DH,IR2=SH,A1=3C,A2=1C,A3=7C,A4=1C,B2=2C,B3=5C IR1=3
35.03	-106.57	9/19/76	13:31: 0	IR2	7.01	0	IR1=DV,IR2=DH,A1=3C,A2=1C,A3=6C,A4=1C,B2=1C,B3=3C SUN O
35.03	-106.57	9/19/76	13:45: 0	IR2	9.86	1	IR1=DV,IR2=SH,A1=3C,A3=4C,A4=1C POSS. SUN OBS.
35.03	-106.57	9/19/76	14: 0: 0	IR2	12.91	1	IR1=SVB,IR2=SH,A1=4C,A3=3C,A4=2C POSS. SUN OBS.
35.03	-106.57	9/19/76	14:15: 0	IR2	15.94	3	IR1=SVB,IR2=DH,A1=4C,A3=2C,A4=2C
35.03	-106.57	9/19/76	14:30: 0	IR2	18.95	3	IR1=DH,IR2=SH,A1=3C,A3=2C,A4=1C
35.03	-106.57	9/19/76	14:45: 0	IR2	21.93	3	IR1=DV,IR2=DH,A1=3C,A3=1C,A4=2C
35.03	-106.57	9/19/76	15: 0: 0	IR2	24.88	3	IR1=DV,IR2=SH,A1=2C,A3=1C,A4=2C
35.03	-106.57	9/19/76	15:30: 0	IR2	30.65	3	IR1=SVB,IR2=DH,A1=1C,A3=1C,A4=1C
35.03	-106.57	9/19/76	15:45: 0	IR2	33.45	3	IR1=DH,IR2=SH,A1=1C,A3=1C,A4=1C
35.03	-106.57	9/19/76	16: 0: 0	IR2	36.18	3	IR1=DV,IR2=SH,A1=1C,A2=1S,A3=1C,A4=1C
35.03	-106.57	9/19/76	16:18:12	IR2	39.38	3	IR1=DV,IR2=SH,A1=1C,A2=1S,A3=1C,A4=1C
35.03	-106.57	9/19/76	16:30: 0	IR2	41.37	3	IR1=SVB,IR2=SH,A1=1C,A2=1S,A3=1C,A4=1C NO TRA
35.03	-106.57	9/19/76	16:45: 0	IR2	43.80	3	IR1=SVB,IR2=SH,A1=1C,A2=1S,A3=1C,A4=1C
35.03	-106.57	9/19/76	17: 0: 0	IR2	46.09	2	IR1=DH,IR2=SH,A1=1C,A2=1S,A3=1C,A4=1C LAST FEW DATA PO
35.03	-106.57	9/19/76	17:15: 0	IR2	48.22	3	IR1=DV,IR2=DH,A1=1C,A2=1S,A3=1C,A4=1C,1S

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
35.03	-106.57	9/19/76	17:30: 0	IR2	50.16	3	IR1=DV,IR2=SH,A2=1S,A3=1C,A4=1C
35.03	-106.57	9/19/76	17:45: 0	IR2	51.88	3	IR1=SVB,IR2=SH,A1=1C,A2=1C,A3=1C,A4=2C
35.03	-106.57	9/19/76	18: 0: 0	IR2	53.35	3	IR1=SVB,IR2=DH,A1=1C,A2=1C,A3=1C,A4=3C
35.03	-106.57	9/19/76	18:15: 0	IR2	54.54	3	IR1=DH,IR2=SH,A2=1C,A3=1C,A4=8C
35.03	-106.57	9/19/76	18:30: 7	IR2	55.41	3	IR1=DV,IR2=DH,A1=1C,A2=1C,A3=1C,A4=9C
35.03	-106.57	9/19/76	18:45: 0	IR2	55.94	3	IR1=DV,IR2=SH,A1=1C,A2=1C,A3=1C,A4=9C
35.03	-106.57	9/19/76	19: 0: 0	IR2	56.13	3	IR1=SVB,IR2=SH,A1=1C,A2=1C,A3=8C,A4=3C
35.03	-106.57	9/19/76	19:15: 0	IR2	55.95	3	IR1=SVB,IR2=DH,A1=1C,A2=2C,2R,A3=7C,A4=7C
35.03	-106.57	9/19/76	19:30: 0	IR2	55.42	3	IR1=DH,IR2=SH,A1=2C,A2=1C,A3=8C,A4=7C,B3=2C,B4=2C
35.03	-106.57	9/19/76	19:38: 0	IR2	55.00	3	IR1=DH,IR2=DH,A1=2C,A2=1C,A3=8C,A4=7C,B3=2C,B4=2C,C=1C
41.12	-111.97	9/27/76	16:16:37	IR2	30.34	3	IR1=DH,IR2=SH,A1=2R,3C,A3=2R,A4=1R,1S,B4=2R
41.12	-111.97	9/27/76	16:31:33	IR2	32.61	3	IR1=DV,IR2=DH,A1=1R,3C,A3=2R,A4=1R,1S,B4=2R
41.12	-111.97	9/27/76	16:45: 0	IR2	34.57	3	IR1=DV,IR2=SH,A1=1R,3C,A3=3S,A4=1R,1S,B4=2R
41.12	-111.97	9/27/76	17: 0: 0	IR2	36.64	3	IR1=SVB,IR2=SH,A1=3C,A3=2R,A4=1S,2R,B4=1R
41.12	-111.97	9/27/76	17:15: 0	IR2	38.57	3	IR1=SVB,IR2=DH,A1=3C,A4=1R,2S,B1=1R,B4=1R
41.12	-111.97	9/27/76	17:30: 0	IR2	40.34	0	IR1=DH,IR2=SH,A1=1R,2C,A3=1S,A4=1R,3S, SUN OBS - CLOUD
41.12	-111.97	9/27/76	17:45: 0	IR2	41.94	3	IR1=DV,IR2=DH,A1=1S,2C,A3=1S,A4=1C,3S,B1=1R,B4=1R
41.12	-111.97	9/27/76	18: 0: 0	IR2	43.35	3	IR1=DV,IR2=SH,A1=1S,1C,A3=1S,A4=2S,B4=1R
41.12	-111.97	9/27/76	18:15: 0	IR2	44.55	3	IR1=SVB,IR2=SH,A1=1S,1C,A3=2S,A4=1R,1S,2C
41.12	-111.97	9/27/76	18:30: 0	IR2	45.52	3	IR1=SVB,IR2=DH,A1=1S,1C,A3=3S,1C,A4=1R,2S,2C
41.12	-111.97	9/27/76	18:45: 0	IR2	46.24	3	IR1=DH,IR2=SH,A1=1C,A3=3S,1C,A4=1R,2S,2C, SKY DATA NO G
41.12	-111.97	9/27/76	19: 0: 0	IR2	46.71	3	IR1=DV,IR2=DH,A1=1R,1C,A3=3S,1C,A4=1R,2S,2C
41.12	-111.97	9/27/76	19:15: 0	IR2	46.91	3	IR1=DV,IR2=SH,A1=1R,2C,A2=1S,A3=3S,2C,A4=3S,3C
41.12	-111.97	9/28/76	13:45:57	IR2	3.60	3	IR1=DH,IR2=SH, IR1(350)=2.67-8 IR2(350)=1.11-7 SUN O
41.12	-111.97	9/28/76	14: 0: 1	IR2	6.22	3	IR1=DV,IR2=DH, IR1(350)=4.08-8 IR2(350)=1.93-7 SUN O
41.12	-111.97	9/28/76	14:15:41	IR2	9.13	3	IR1=DV,IR2=SH
41.12	-111.97	9/28/76	14:30: 0	IR2	11.76	3	IR1=SVB,IR2=SH
41.12	-111.97	9/28/76	14:45: 0	IR2	14.48	3	IR1=SVB,IR2=DH
41.12	-111.97	9/28/76	15: 0: 0	IR2	17.17	3	IR1=DH,IR2=SH
41.12	-111.97	9/28/76	15:15: 0	IR2	19.82	3	IR1=DV,IR2=DH

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
41.12	-111.97	9/28/76	15:30: 0	IR2	22.41	3	IR1=DV,IR2=SH
41.12	-111.97	9/28/76	15:45: 0	IR2	24.94	3	IR1=SVB,IR2=SH
41.12	-111.97	9/28/76	16: 0: 0	IR2	27.40	3	IR1=SVB,IR2=DH
41.12	-111.97	9/28/76	16:15: 0	IR2	29.78	3	IR1=DH,IR2=SH
41.12	-111.97	9/28/76	16:30: 0	IR2	32.07	3	IR1=DV,IR2=DH
41.12	-111.97	9/28/76	16:45: 0	IR2	34.25	3	IR1=DV,IR2=SH
41.12	-111.97	9/28/76	17: 0: 0	IR2	36.31	3	IR1=SVB,IR2=SH
41.12	-111.97	9/28/76	17:15: 0	IR2	38.23	3	IR1=SVB,IR2=DH
41.12	-111.97	9/28/76	17:30: 0	IR2	39.99	3	IR1=DH,IR2=SH
41.12	-111.97	9/28/76	17:45: 0	IR2	41.58	3	IR1=DV,IR2=DH
41.12	-111.97	9/28/76	18: 0: 0	IR2	42.98	3	IR1=DV,IR2=SH
41.12	-111.97	9/28/76	18:13:24	IR2	44.06	3	IR1=SVB,IR2=SH, NOT NORMALIZED - PROBABLY OK
41.12	-111.97	9/28/76	18:30: 0	IR2	45.14	3	IR1=SVB,IR2=DH
41.12	-111.97	9/28/76	18:45: 0	IR2	45.85	3	IR1=DH,IR2=SH
41.12	-111.97	9/28/76	19: 0: 0	IR2	46.32	3	IR1=DV,IR2=DH
41.12	-111.97	9/28/76	19:15: 0	IR2	46.52	3	IR1=DV,IR2=SH
41.12	-111.97	9/28/76	19:30: 0	IR2	46.45	3	IR1=SVB,IR2=SH
41.12	-111.97	9/28/76	19:45: 0	IR2	46.11	2	IR1=SVB,IR2=DH, WEATHER TOWER IN SKY FOV
41.12	-111.97	9/28/76	20: 0: 0	IR2	45.51	3	IR1=DH,IR2=SH
41.12	-111.97	9/28/76	20:15: 0	IR2	44.67	3	IR1=DV,IR2=DH
41.12	-111.97	9/28/76	20:30: 0	IR2	43.59	3	IR1=DV,IR2=SH, WEATHER TOWER UP
41.12	-111.97	9/28/76	20:45: 0	IR2	42.29	3	IR1=SVB,IR2=SH
41.12	-111.97	9/28/76	21: 0:46	IR2	40.70	3	IR1=DH,IR2=SVB
41.12	-111.97	9/28/76	21:15:30	IR2	39.04	3	IR1=SH,IR2=DH
41.12	-111.97	9/28/76	21:30: 0	IR2	37.25	3	IR1=DH,IR2=DV
41.12	-111.97	9/28/76	21:45: 0	IR2	35.26	3	IR1=SH,IR2=DV
41.12	-111.97	9/28/76	22: 0: 0	IR2	33.14	3	IR1=SH,IR2=SVB
41.12	-111.97	9/28/76	22:15: 0	IR2	30.90	3	IR1=DH,IR2=SVB
41.12	-111.97	9/28/76	22:30: 0	IR2	28.56	3	IR1=SH,IR2=DH
41.12	-111.97	9/28/76	22:45: 0	IR2	26.14	3	IR1=DH,IR2=DV

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
41.12	-111.97	9/28/76	23: 0: 0	IR2	23.64	3	IR1=SH,IR2=DV
41.12	-111.97	9/28/76	23:15: 0	IR2	21.07	3	IR1=SH,IR2=SVB
41.12	-111.97	9/28/76	23:31:29	IR2	18.18	3	IR1=DH,IR2=SVB
41.12	-111.97	9/28/76	23:45: 0	IR2	15.77	3	IR1=SH,IR2=DH
41.12	-111.97	9/28/76	24: 0: 0	IR2	13.06	0	IR1=DH,IR2=DV, NO GOOD - CAL LAMP ON
41.12	-111.97	9/29/76	0:15: 0	IR2	10.31	3	IR1=SH,IR2=DV
41.12	-111.97	9/29/76	0:20: 0	IR2	9.39	3	IR1=DH,IR2=DV
41.12	-111.97	9/29/76	0:35: 0	IR2	6.61	3	IR1=SH,IR2=DV, IR1(350)=3.69-8 IR2(350)=2.27-7
41.12	-111.97	9/29/76	0:50: 0	IR2	3.81	3	IR1=SH,IR2=DH, IR1(350)=2.05-8 IR2(350)=9.87-8
41.12	-111.97	9/29/76	1: 6:16	IR2	0.75	3	IR1=SH,IR2=DH, NOT NORMALIZED - PROBABLY OK
41.12	-111.97	9/29/76	1:20: 0	IR2	-1.83	3	IR1=SH,IR2=DH, IR1(350)=1.52-9 IR2(350)=6.8-9
41.12	-111.97	9/29/76	13:30: 0	IR2	0.35	3	IR1=DV,IR2=SH, IR1(350)=6.57-9 IR2(350)=4.77-8
41.12	-111.97	9/29/76	13:45: 0	IR2	3.16	3	IR1=DV,IR2=SH, IR1(350)=1.44-8 IR2(350)=1.07-7
41.12	-111.97	9/29/76	14: 0: 0	IR2	5.96	3	IR1=DV,IR2=DH, IR1(350)=4.06-8 IR2(350)=1.95-7
41.12	-111.97	9/29/76	14:15: 0	IR2	8.74	3	IR1=DV,IR2=SH
41.12	-111.97	9/29/76	14:30: 0	IR2	11.49	3	IR1=SVB,IR2=SH
41.12	-111.97	9/29/76	14:45: 0	IR2	14.21	3	IR1=SVB,IR2=DH
41.12	-111.97	9/29/76	15: 0: 0	IR2	16.90	3	IR1=DH,IR2=SH
41.12	-111.97	9/29/76	15:15: 0	IR2	19.54	3	IR1=DV,IR2=DH
41.12	-111.97	9/29/76	15:30: 0	IR2	22.13	0	IR1=DV,IR2=SH, SKY RAD NO GOOD
41.12	-111.97	9/29/76	15:45: 0	IR2	24.65	0	IR1=SVB,IR2=SH, IR2 NO GOOD
41.12	-111.97	9/29/76	16: 0: 0	IR2	27.11	3	IR1=SVB,IR2=DH
41.12	-111.97	9/29/76	16:15: 0	IR2	29.48	3	IR1=DH,IR2=SH
41.12	-111.97	9/29/76	16:30: 0	IR2	31.76	3	IR1=DV,IR2=DH
41.12	-111.97	9/29/76	16:45: 0	IR2	33.93	3	IR1=DV,IR2=SH
41.12	-111.97	9/29/76	17: 0: 0	IR2	35.98	3	IR1=SVB,IR2=SH
41.12	-111.97	9/29/76	17:15: 0	IR2	37.89	3	IR1=SVB,IR2=DH, SKY RAD NO GOOD
41.12	-111.97	9/29/76	17:30: 0	IR2	39.64	3	IR1=DH,IR2=SH
41.12	-111.97	9/29/76	17:45: 0	IR2	41.23	3	IR1=DV,IR2=DH
41.12	-111.97	9/29/76	18: 0: 0	IR2	42.62	3	IR1=DV,IR2=SH

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
41.12	-111.97	9/29/76	18:15: 0	IR2	43.80	3	IR1=SVB,IR2=SH
41.12	-111.97	9/29/76	18:30: 0	IR2	44.75	3	IR1=SVB,IR2=DH
41.12	-111.97	9/29/76	18:45: 0	IR2	45.47	3	IR1=DH,IR2=SH
41.12	-111.97	9/29/76	19: 0: 0	IR2	45.93	3	IR1=DV,IR2=DH
41.12	-111.97	9/29/76	19:15: 0	IR2	46.13	3	IR1=DV,IR2=SH, WEATHER TOWER IN SKY FOV
41.12	-111.97	9/29/76	19:30: 0	IR2	46.06	3	IR1=SVB,IR2=SH, WEATHER TOWER IN SKY FOV
41.12	-111.97	9/29/76	19:45: 0	IR2	45.72	3	IR1=SVB,IR2=DH, TOWER DOWN
41.12	-111.97	9/29/76	20: 0: 0	IR2	45.13	3	IR1=DH,IR2=SH,A1=1S,A4=1S, SKY RAD NO GOOD
41.12	-111.97	9/29/76	20:15: 0	IR2	44.29	3	IR1=DV,IR2=DH,A1=1S,A4=1S
41.12	-111.97	9/29/76	20:30: 0	IR2	43.22	3	IR1=DV,IR2=SH,A1=1S,A4=1S
41.12	-111.97	9/29/76	20:45: 0	IR2	41.92	3	IR1=SVB,IR2=SH,A1=1S,A4=1S
41.12	-111.97	9/29/76	21: 0: 0	IR2	40.43	3	IR1=SVB,IR2=DH,A1=1S,A4=1S, SKY RAD NO GOOD
41.12	-111.97	9/29/76	21:15: 0	IR2	38.76	3	IR1=DH,IR2=SH,A1=1S,A4=1S
41.12	-111.97	9/29/76	21:30: 0	IR2	36.92	3	IR1=DH,IR2=DV,A1=1S,A4=1S
41.12	-111.97	9/29/76	21:45: 0	IR2	34.93	3	IR1=SH,IR2=DV,A1=1S,A4=2S
41.12	-111.97	9/29/76	22: 0: 0	IR2	32.82	3	IR1=SH,IR2=SVB,A1=1S,A4=2S
41.12	-111.97	9/29/76	22:15: 0	IR2	30.59	3	IR1=DH,IR2=SVB,A1=1S,A4=2S
41.12	-111.97	9/29/76	22:30: 0	IR2	28.26	3	IR1=SH,IR2=DH,A1=1S,A4=2S
41.12	-111.97	9/29/76	22:45: 0	IR2	25.84	3	IR1=DH,IR2=DV,A1=1S,A4=3S
41.12	-111.97	9/29/76	23: 0: 0	IR2	23.35	3	IR1=SH,IR2=DV,A1=1S,A4=3S
41.12	-111.97	9/29/76	23:15: 0	IR2	20.79	3	IR1=SH,IR2=SVB,A1=2S,A4=3S
41.12	-111.97	9/29/76	23:30: 0	IR2	18.17	2	IR1=DH,IR2=SVB,A1=2S,A4=4S, SUN OBS - CIRRUS
39.78	-84.08	10/22/76	12: 0: 0	IR2	0.06	1	IR1=DH,IR2=SH IR1 NO GOOD IR1(350)=9.57-9 IR2(350)=2.91
39.78	-84.08	10/22/76	12:15: 0	IR2	2.83	2	IR1=DH,IR2=SH IR1(350)=2.18-8 IR2(350)=6.83-8
39.78	-84.08	10/22/76	12:30: 0	IR2	5.56	2	IR1=DV,IR2=D,A1=1R,A2=1R,A3=1R,A4=1R LIGHT CIRRUS OVER
39.78	-84.08	10/22/76	12:45: 0	IR2	8.25	2	IR1=DV,IR2=SH,A1=2R,A2=1R,A3=1R,A4=1R
39.78	-84.08	10/22/76	13: 0: 0	IR2	10.89	2	IR1=SVB,IR2=SH,A1=3R,A2=2R,A3=2R,A4=3R FIRST FEW POINTS
39.78	-84.08	10/22/76	13:15: 0	IR2	13.47	2	IR1=SVB,IR2=DH,A1=3R,A2=2R,A3=2R,A4=2R
39.78	-84.08	10/22/76	13:30: 0	IR2	15.99	2	IR1=DH,IR2=SH,A1=3R,A2=2R,A3=2R,A4=2R NO TRANSMISSOMETE
39.78	-84.08	10/22/76	13:43:47	IR2	18.24	2	IR1=DV,IR2=DH,A1=6R,A2=3R,A3=2R,A4=4R

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
39.78	-84.68	10/22/76	14: 0: 0	IR2	20.81	2	IR1=DV,IR2=SM,A1=7R,A2=2R,A3=1R,A4=3R
39.78	-84.68	10/22/76	14:15: 0	IR2	23.08	2	IR1=SVB,IR2=SM,A1=7R,A2=2R,A3=1R,A4=4R
39.78	-84.68	10/22/76	14:30: 0	IR2	25.26	2	IR1=SVB,IR2=DM,A1=6R,A2=2R,A3=1R,A4=3R
39.78	-84.68	10/22/76	14:45: 0	IR2	27.32	2	IR1=DM,IR2=SM,A1=9R,A2=2R,A3=2R,A4=4R
39.78	-84.68	10/22/76	15: 0: 0	IR2	29.26	2	IR1=DV,IR2=DM,A1=9R,A2=1R,A3=2R,A4=5R
39.78	-84.68	10/22/76	15:15: 0	IR2	31.05	2	IR1=DV,IR2=SM,A1=9R,A2=7R,A3=2R,A4=7R
39.78	-84.68	10/22/76	15:30: 0	IR2	32.70	2	IR1=SVB,IR2=SM CIRRUS COVERING MOST OF SKY
39.78	-84.68	10/26/76	14:33: 9	IR2	24.69	3	IR1=SVB,IR2=SM HAZE ON THE HORIZON ALL AZIMUTHS
39.78	-84.68	10/26/76	14:45:52	IR2	26.39	3	IR1=SVB,IR2=DM HAZE ON THE HORIZON ALL AZIMUTHS
39.78	-84.68	10/26/76	15: 0: 0	IR2	28.18	2	IR1=DM,IR2=SM,A1=1R,A2=1R,A3=2R,A4=2R,B4=2S,B2=1S SKY D
39.78	-84.68	10/26/76	15:15: 0	IR2	29.94	1	IR1=DV,IR2=DM CLOUDS THROUGHOUT THE SKY
39.78	-84.68	10/28/76	12: 5: 0	IR2	-0.19	2	IR1=DM,IR2=SM,A1=2R,A2=2R,A3=2R,A4=2R IR1(350)=8.39-9 I
39.78	-84.68	10/28/76	12:25: 0	IR2	3.44	2	IR1=DM,IR2=SM,A1=2R,A2=2R,A3=2R,A4=2R IR1(350)=2.56-8 I
39.78	-84.68	10/28/76	12:40: 0	IR2	6.12	2	IR1=DV,IR2=DM,A1=1R,A2=1R,A3=1R,A4=1R IR1(350)=3.84-8 I
39.78	-84.68	10/28/76	12:55: 0	IR2	8.74	3	IR1=DV,IR2=SM,A1=1R,A2=1R,A3=1R SMOG ON HORIZON
39.78	-84.68	10/28/76	13:10: 0	IR2	11.30	3	IR1=SVB,IR2=SM SMOG ON HORIZON
39.78	-84.68	10/28/76	13:25: 0	IR2	13.81	3	IR1=SVB,IR2=DM SMOG ON HORIZON HAZY
39.78	-84.68	10/28/76	13:40: 0	IR2	16.24	3	IR1=DM,IR2=SM SMOG ON HORIZON HAZY
39.78	-84.68	10/28/76	13:55: 0	IR2	18.59	3	IR1=DV,IR2=DM HEAVY SMOG IN A1 AND A2 MODERATE IN A3 L
39.78	-84.68	10/28/76	14:10: 0	IR2	20.85	3	IR1=DV,IR2=SM HEAVY SMOG IN A1,A2,A3 MODERATE SMOG IN
39.78	-84.68	10/28/76	14:25: 0	IR2	23.01	3	IR1=SVB,IR2=SM HEAVY SMOG IN A1,A2,A3 MODERATE SMOG IN
39.78	-84.68	10/28/76	14:40: 0	IR2	25.05	3	IR1=SVB,IR2=DM HEAVY SMOG IN A1,A2,A3 MODERATE SMOG IN
39.78	-84.68	10/28/76	14:55: 0	IR2	26.98	3	IR1=DM,IR2=SM HEAVY SMOG IN A1,A2,A3 MODERATE SMOG IN
39.78	-84.68	10/28/76	15:10: 0	IR2	28.77	3	IR1=DV,IR2=DM LIGHT SMOG IN A1,A2,A3,A4
39.78	-84.68	10/28/76	15:25: 0	IR2	30.41	3	IR1=DV,IR2=SM LIGHT SMOG IN A1,A2,A3,A4
39.78	-84.68	10/28/76	15:40: 0	IR2	31.90	3	IR1=SVB,IR2=SM LIGHT SMOG IN A1,A2,A3,A4
39.78	-84.68	10/28/76	15:55: 0	IR2	33.20	3	IR1=SVB,IR2=DM LIGHT SMOG IN A1,A2,A3,A4
39.78	-84.68	10/28/76	16:10: 0	IR2	34.32	3	IR1=DM,IR2=SM,A1=1S LIGHT SMOG IN A1,A2,A3,A4
39.78	-84.68	10/28/76	16:25: 0	IR2	35.24	3	IR1=DV,IR2=DM,A1=1S LIGHT SMOG IN A1,A2,A3,A4
39.78	-84.68	10/28/76	16:40: 0	IR2	35.95	3	IR1=DV,IR2=SM,A1=1S LIGHT SMOG IN A1,A2,A3,A4

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
39.78	-84.08	10/28/76	16:55: 0	IR2	36.45	3	IR1=SVB,IR2=SM,A1=1S LIGHT SMOG
39.78	-84.08	10/28/76	17:10: 0	IR2	36.71	3	IR1=SVB,IR2=DM LIGHT SMOG - SKY DATA IS NO GOOD
39.78	-84.08	10/28/76	17:25: 0	IR2	36.79	3	IR1=DM,IR2=SM LIGHT SMOG - SKY DATA IS NO GOOD
39.78	-84.08	10/28/76	17:40: 0	IR2	36.56	3	IR1=DV,IR2=DM LIGHT SMUG
39.78	-84.08	10/28/76	17:55: 0	IR2	36.15	3	IR1=DV,IR2=SM LIGHT SMUG
39.78	-84.08	10/28/76	18:10: 0	IR2	35.51	3	IR1=SVB,IR2=SM LIGHT SMUG
39.78	-84.08	10/28/76	18:25: 0	IR2	34.66	3	IR1=DM,IR2=SVB,A1=2R,A4=2R
39.78	-84.08	10/28/76	18:40: 0	IR2	33.61	3	IR1=SM,IR2=DM,A1=2R,A4=2R
39.78	-84.08	10/28/76	18:55: 0	IR2	32.37	3	IR1=DM,IR2=DV,A1=3R,A4=3R SKY DATA IS NO GOOD
39.78	-84.08	10/28/76	19:10: 0	IR2	30.95	3	IR1=SM,IR2=DV,A1=3R,A4=3R
39.78	-84.08	10/28/76	19:25: 0	IR2	29.36	3	IR1=SM,IR2=SVB,A1=3R,A4=3R
39.78	-84.08	10/28/76	19:40: 0	IR2	27.62	3	IR1=DM,IR2=SVB,A1=3R,A4=3R
39.78	-84.08	10/28/76	19:55: 0	IR2	25.74	3	IR1=SM,IR2=DM,A1=3R,A4=3R
39.78	-84.08	10/28/76	20:10: 0	IR2	23.73	3	IR1=DM,IR2=DV,A1=3R,A4=3R
39.78	-84.08	10/28/76	20:25: 0	IR2	21.61	3	IR1=SM,IR2=DV,A1=3R,A4=3R
39.78	-84.08	10/28/76	20:40: 0	IR2	19.39	3	IR1=SM,IR2=SVB,A1=3R,A4=3R
39.78	-84.08	10/28/76	20:55: 0	IR2	17.06	3	IR1=DM,IR2=SVB,A1=3R,A4=3R
39.78	-84.08	10/28/76	21:10: 0	IR2	14.65	3	IR1=SM,IR2=DM,A1=3R,A4=3R
39.78	-84.08	10/28/76	21:25: 0	IR2	12.17	3	IR1=DM,IR2=DV,A1=3R,A4=3R
39.78	-84.08	10/28/76	21:40: 0	IR2	9.63	3	IR1=SM,IR2=DV,A1=3R,A3=1R,A4=3R
39.78	-84.08	10/28/76	21:55: 0	IR2	7.02	3	IR1=SM,IR2=SVB,A1=3R,A3=1R,A4=3R
39.78	-84.08	10/28/76	22:10: 0	IR2	4.37	3	IR1=SM,IR2=DM,A1=2R,A3=1R,A4=2R SKY DATA NO GOOD ?
39.78	-84.08	10/28/76	22:25: 0	IR2	1.66	3	IR1=SM,IR2=DM,A1=2R,A2=2R,A3=2R,A4=2R SLIGHT SUN OBS -
39.78	-84.08	10/29/76	14:30: 0	IR2	23.44	3	IR1=DV,IR2=DM,A1=3R, A1,2,3 MODERATE SMOG
39.78	-84.08	10/29/76	14:45: 0	IR2	25.43	3	IR1=DV,IR2=SM,A1=3R,A2=1R A1,2,3 MODERATE SMOG
39.78	-84.08	10/29/76	15: 0: 0	IR2	27.30	3	IR1=SVB,IR2=SM,A1=3R,A2=1R A1,2,3 MOD SMOG
39.78	-84.08	10/29/76	15:15: 0	IR2	29.04	3	IR1=SVB,IR2=DM,A1=4R,A2=2R MOD SMOG
39.78	-84.08	10/29/76	15:30: 0	IR2	30.63	3	IR1=DM,IR2=SM,A1=4R,A2=2R A1,2,3 MOD SMOG
39.78	-84.08	10/29/76	15:45: 0	IR2	32.04	3	IR1=DV,IR2=DM,A1=4R,A2=2R A1,2,3 MOD SMOG
39.78	-84.08	10/29/76	16: 0: 0	IR2	33.29	3	IR1=DV,IR2=SM,A1=5R,A2=3R A1,2,3 MOD SMOG

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
39.78	-84.08	10/29/76	16:15: 0	IR2	34.33	3	IR1=SVB,IR2=SH,A1=3R,A2=3R,A4=1R,B1=2R MOD SMOG
39.78	-84.08	10/29/76	16:30: 0	IR2	35.18	3	IR1=SVB,IR2=DH,A1=2R,A2=1R,A4=1R,B1=4R,B2=1R SUN OBS

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
35.92	-92.15	A/ 6/75	20:10: 3	MAP	57.98	3	IR1=SH,IR2=DV
35.92	-92.15	A/ 6/75	20:26:19	MAP	55.41	3	IR1=SH,IR2=SVB
35.92	-92.15	A/ 6/75	20:41:50	MAP	52.14	3	IR1=DH,IR2=SVB
35.92	-92.15	A/ 6/75	21: 1:53	MAP	48.29	3	IR1=SH,IR2=DH
35.92	-92.15	A/ 6/75	22:14:24	MAP	33.83	3	IR1=DH,IR2=DV
35.92	-92.15	A/ 6/75	22:29: 7	MAP	30.85	3	IR1=SH,IR2=DV
35.92	-92.15	A/ 6/75	22:45: 6	MAP	27.62	3	IR1=SH,IR2=SVB
33.85	-83.32	A/12/75	18:45:25	MAP	65.79	3	IR1=DH,IR2=SVB
33.85	-83.32	B/12/75	18:59:56	MAP	63.62	3	IR1=SH,IR2=DH
33.85	-83.32	A/12/75	20:24:56	MAP	48.00	3	IR1=SH,IR2=SVF
33.85	-83.32	A/13/75	22: 5: 7	MAP	27.29	3	IR1=DH,IR2=SVF
33.85	-83.32	A/14/75	13:45:57	MAP	34.34		
33.85	-83.32	B/14/75	14: 7:52	MAP	38.85		
33.85	-83.32	A/14/75	14:21:14	MAP	41.58		
33.85	-83.32	A/14/75	14:38:56	MAP	45.16	3	IR1=SVB,IR2=DH
33.85	-83.32	B/14/75	14:58:16	MAP	49.01	3	IR1=SH,IR2=DH
33.85	-83.32	B/14/75	15:40:30	MAP	57.04	3	IR1=SVB,IR2=SH
33.85	-83.32	A/14/75	15:54:48	MAP	59.58	3	IR1=SVB,IR2=DH
33.85	-83.32	B/14/75	16: 7:59	MAP	61.80	3	IR1=SH,IR2=DH
27.85	-82.52	A/19/75	17:58:12	MAP	73.92	3	IR1=SH,IR2=SVF
27.85	-82.52	B/19/75	18: 9:31	MAP	72.81	3	IR1=SH,IR =SVB
27.85	-82.52	A/19/75	18:23:14	MAP	71.06	3	IR1=DH,IR2=SVB
27.85	-82.52	B/19/75	18:40:20	MAP	68.41	3	IR1=SH,IR2=DH
27.85	-82.52	B/19/75	18:59:42	MAP	64.97	3	IR1=DH,IR2=DV
27.85	-82.52	B/19/75	19:15: 8	MAP	62.02	3	IR1=SH,IR2=DV
27.85	-82.52	B/19/75	19:29:11	MAP	59.21	3	IR1=SH,IR2=SVB
27.85	-82.52	A/19/75	19:45:24	MAP	55.87	3	IR1=DH,IR2=SVB
27.85	-82.52	A/19/75	20: 1:29	MAP	52.49	3	IR1=SH,IR2=DH
27.85	-82.52	A/19/75	20:17:22	MAP	49.09	3	IR1=DH,IR2=DV
27.85	-82.52	B/19/75	20:30:15	MAP	46.30	3	IR1=SH,IR2=DV

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
27.85	-82.52	8/19/75	20:46:28	MAP	42.77	3	IR1=SH,IR2=SVP
27.85	-82.52	8/19/75	21: 0: 0	MAP	39.80		
27.85	-82.52	8/19/75	21:20:57	MAP	35.19	3	IR1=SH,IR2=DH
27.85	-82.52	8/19/75	21:34:41	MAP	32.16	3	IR1=DH,IR2=DV
27.85	-82.52	8/19/75	21:46:57	MAP	29.45	3	IR1=SH,IR2=DV
27.85	-82.52	8/19/75	22: 2:35	MAP	25.99	3	IR1=SH,IR2=SVP
27.85	-82.52	8/19/75	22:15:49	MAP	23.06	3	IR1=DH,IR2=SVP
29.73	-85.05	8/27/75	14:47: 7	MAP	44.78	3	IR1=SVF,IR2=SH
29.73	-85.05	8/27/75	15: 0: 0	MAP	47.45	3	IR1=SVB,IR2=SH
29.73	-85.05	8/27/75	15:15: 0	MAP	50.50	3	IR1=SVB,IR2=DH
29.73	-85.05	8/27/75	15:30: 0	MAP	53.47	3	IR1=DH,IR2=SH
29.73	-85.05	8/27/75	15:57:25	MAP	58.66	3	IR1=SVF,IR2=DH
29.73	-85.05	8/27/75	16:15: 5	MAP	61.74	3	IR1=SVF,IR2=SH
29.73	-85.05	8/27/75	16:30: 0	MAP	64.13	3	IR1=SVB,IR2=SH
29.73	-85.05	8/27/75	16:45: 0	MAP	66.25	3	IR1=SVB,IR2=DH
29.73	-85.05	8/27/75	17: 0: 0	MAP	68.02	3	IR1=DH,IR2=SH
29.73	-85.05	8/27/75	17:30: 0	MAP	70.14	3	IR1=DH,IR2=SVF
29.73	-85.05	8/27/75	17:46:19	MAP	70.32	3	IR1=SH,IR2=SVF
29.73	-85.05	8/27/75	18: 0: 0	MAP	69.90	3	IR1=SH,IR2=SVB
29.73	-85.05	8/27/75	18:15: 0	MAP	68.90	3	IR1=DH,IR2=SVB
29.73	-85.05	8/27/75	18:30: 0	MAP	67.39	3	IR1=SH,IR2=DH
29.73	-85.05	8/27/75	19: 0: 0	MAP	63.23	3	IR1=DH,IR2=SVF
29.73	-85.05	8/27/75	19:15: 0	MAP	60.74	3	IR1=SH,IR2=SVF
29.73	-85.05	8/27/75	19:30: 0	MAP	58.07	3	IR1=SH,IR2=SVB
29.73	-85.05	8/27/75	19:45: 0	MAP	55.26	3	IR1=DH,IR2=SVB
29.73	-85.05	8/27/75	20: 0: 0	MAP	52.33	3	IR1=SH,IR2=DH
29.73	-85.05	8/27/75	20:20: 0	MAP	48.31	3	IR1=DH,IR2=SVF
29.73	-85.05	8/27/75	20:50: 0	MAP	42.07	3	IR1=SH,IR2=SVB
29.73	-85.05	8/27/75	21: 5: 0	MAP	38.90	3	IR1=DH,IR2=SVB
29.73	-85.05	8/27/75	21:20: 0	MAP	35.70	3	IR1=SH,IR2=DH

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
29.73	-85.05	8/27/75	21:40: 0	MAP	31.39	3	IR1=DH,IR2=SVF
29.73	-85.05	8/27/75	21:55: 3	MAP	27.49	3	IR1=SH,IR2=SVF
29.73	-85.05	8/27/75	22:11:25	MAP	24.59	3	IR1=SH,IR2=SVA
29.73	-85.05	8/27/75	22:25: 0	MAP	21.64	3	IR1=DH,IR2=SVA
29.73	-85.05	8/27/75	22:42:28	MAP	17.85	3	IR1=SH,IR2=DH
29.73	-85.05	8/27/75	23: 0: 0	MAP	14.05	3	IR1=DH,IR2=SVF
29.73	-85.05	8/27/75	23:15: 0	MAP	10.80	3	IR1=SH,IR2=SVF
29.73	-85.05	8/27/75	23:30: 0	MAP	7.56	3	IR1=SH,IR2=SVA
29.73	-85.05	8/27/75	23:45:46	MAP	4.17	3	IR1=DH,IR2=SVA
29.73	-85.05	8/27/75	23:59:59	MAP	1.13	3	IR1=SH,IR2=DH
29.73	-85.05	8/28/75	20:20: 0	MAP	47.90	3	IR1=DH,IR2=DV
29.73	-85.05	8/28/75	20:50: 0	MAP	41.68	3	IR1=SVA,IR2=SH
29.73	-85.05	8/28/75	21: 5: 0	MAP	38.51	3	IR1=DH,IR2=SVA
29.73	-85.05	8/28/75	21:55: 0	MAP	27.77	3	IR1=SH,IR2=DV
29.73	-85.05	8/28/75	22:22:30	MAP	21.80	3	IR1=DH,IR2=SVB
29.73	-85.05	8/28/75	22:42:38	MAP	17.43	3	IR1=SH,IR2=DH
29.73	-85.05	8/28/75	23: 0: 0	MAP	13.66	3	IR1=DH,IR2=DV
29.73	-85.05	8/28/75	23:15: 0	MAP	10.41	3	IR1=SH,IR2=DV
29.73	-85.05	8/28/75	23:30: 0	MAP	7.17	3	IR1=SH,IR2=SVA
39.72	-104.83	10/21/75	16:16:11	MAP	28.97		
39.72	-104.83	10/21/75	16:32:51	MAP	31.05		
39.72	-104.83	10/21/75	19: 2:55	MAP	39.33	3	IR1=SH,IR2=SVA
39.72	-104.83	10/21/75	19:30: 8	MAP	38.40	3	IR1=SH,IR2=DH
39.72	-104.83	10/21/75	19:45:28	MAP	37.55	3	IR1=DH,IR2=DV
39.72	-104.83	10/21/75	20: 0:38	MAP	36.48	3	IR1=SH,IR2=DV
39.72	-104.83	10/21/75	20:16:54	MAP	35.11	3	IR1=SH,IR2=SVA
39.72	-104.83	10/21/75	20:31: 6	MAP	33.74	3	IR1=DH,IR2=SVB
39.72	-104.83	10/21/75	21: 1:20	MAP	30.32	3	IR1=DH,IR2=DV
39.72	-104.83	10/21/75	21:16:37	MAP	28.36	3	IR1=SH,IR2=DV
39.72	-104.83	10/21/75	21:31:42	MAP	26.30	3	IR1=SH,IR2=SVA

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
39.72	-104.83	10/21/75	21:45:51	MAP	24.26	3	IR1=DH,IR2=SVF
39.72	-104.83	10/21/75	22:15: 0	MAP	19.77	3	IR1=DH,IR2=DV
39.72	-104.83	10/21/75	22:30: 0	MAP	17.39	3	IR1=SH,IR2=DV
39.72	-104.83	10/21/75	22:45: 0	MAP	14.82	3	IR1=SH,IR2=SVF
39.72	-104.83	10/21/75	23: 0:17	MAP	12.20	3	IR1=DH,IR2=SVF
39.72	-104.83	10/21/75	23:15:43	MAP	9.69	3	IR1=SH,IR2=DH
39.72	-104.83	10/21/75	23:31: 6	MAP	6.73		
39.72	-104.83	10/21/75	23:45:46	MAP	4.06		
39.72	-104.83	10/22/75	19:23: 4	MAP	38.36	3	IR1=SH,IR2=SVF
39.72	-104.83	10/22/75	20:20:17	MAP	34.47	3	IR1=DH,IR2=SVF
39.72	-104.83	10/22/75	20:37: 1	MAP	32.80	3	IR1=SH,IR2=SVF
39.72	-104.83	10/22/75	20:52:23	MAP	31.08	3	IR1=SH,IR2=SVF
39.72	-104.83	10/22/75	21: 6:38	MAP	29.35	3	IR1=DH,IR2=SVF
39.72	-104.83	10/22/75	21:20:39	MAP	27.53	3	IR1=SH,IR2=DH
39.72	-104.83	10/22/75	21:37:13	MAP	25.23	3	IR1=DH,IR2=SVF
39.72	-104.83	10/22/75	22: 6:19	MAP	20.87	3	IR1=SH,IR2=SVF
38.79	-77.69	11/ 6/75	17:54:43	MAP	33.37	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 6/75	18:10: 0	MAP	32.38	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 6/75	18:25: 0	MAP	31.21	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 6/75	19:10: 0	MAP	26.66	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 6/75	19:25: 0	MAP	24.84	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 6/75	19:40: 0	MAP	22.88	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 6/75	19:55: 0	MAP	20.81	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	17:34: 0	MAP	33.51	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	17:49: 0	MAP	32.83	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	18: 4: 0	MAP	31.95	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	18:19: 0	MAP	30.87	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	19:21:17	MAP	24.55	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	19:36:37	MAP	22.60	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	19:49:34	MAP	20.86	3	IR1=NO,IR2=DH

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
38.79	-77.69	11/ 9/75	20: 5:32	MAP	18.59	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	20:19: 0	MAP	16.59	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	20:34: 5	MAP	14.26	3	IR1=NO,IR2=DH
38.79	-77.69	11/ 9/75	20:50: 0	MAP	11.71	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	16:10: 0	MAP	32.75	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	16:25: 0	MAP	33.28	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	16:40: 0	MAP	33.60	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	16:55: 0	MAP	33.71	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	17:10: 0	MAP	33.59	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	17:25: 0	MAP	33.26	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	17:40: 0	MAP	32.71	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	17:55: 0	MAP	31.95	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	18:40: 0	MAP	28.53	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	18:55: 0	MAP	27.04	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	19:10: 0	MAP	25.40	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	19:25: 0	MAP	23.61	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	19:40:52	MAP	21.57	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	19:55: 0	MAP	19.65	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	20:10: 0	MAP	17.50	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	20:25: 0	MAP	15.25	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	20:40: 0	MAP	12.91	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	20:55: 0	MAP	10.49	3	IR1=NO,IR2=DH
38.79	-77.69	11/11/75	21:10: 0	MAP	7.99	3	IR1=NO,IR2=DH
45.55	-94.07	2/21/76	17:22: 8	MAP	31.63	1	IR1=DH,IR2=SVB,A1=5R,A4=6RD B1=1R,B4=1R,POSSIBLE SUN OBS
45.55	-94.07	2/21/76	17:35: 0	MAP	32.33	2	IR1=SH,IR2=DH,A1=5R,A4=6R,B1=1R,B4=1R,POSSIBLE SUN OBS.
45.55	-94.07	2/21/76	17:50: 0	MAP	32.97	3	IR1=DH,IR2=DV,A1=4R,A4=7R,B1=1R,B4=1R
45.55	-94.07	2/21/76	18: 5: 0	MAP	33.41	3	IR1=SH,IR2=DV,A1=3R,A4=7R,B4=2R
45.55	-94.07	2/21/76	18:22: 6	MAP	33.67	2	IR1=SH,IR2=SVB,A1=3R,A4=6R,B4=1R,LATE CASSETTE STUCK.
45.55	-94.07	2/21/76	18:36:50	MAP	33.68	3	IR1=DH,IR2=SVP,A1=1R,A4=4R,B1=1R,LATE
45.55	-94.07	2/21/76	18:50: 0	MAP	33.53	3	IR1=SH,IR2=DH,A1=1R,A4=4R,B1=1R

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
45.55	-94.07	2/21/76	19: 5: 0	MAP	33.17	3	IR1=DH,IR2=DV,A1=1R,A4=3R,B1=1R
45.55	-94.07	2/21/76	19:20: 0	MAP	32.61	3	IR1=SH,IR2=DV,A1=1R,A4=2R
45.55	-94.07	2/21/76	19:35: 0	MAP	31.86	3	IR1=SH,IR2=SVB,A1=1R,A3=1R,A4=2R
45.55	-94.07	2/21/76	19:50: 0	MAP	30.93	2	IR1=DH,IR2=SVB,A1=1R,A3=1R,A4=2R,IR1 HAS BAD DATA POINTS I
45.55	-94.07	2/21/76	20: 5: 0	MAP	29.82	3	IR1=SH,IR2=DH,A1=1R,A3=1R,A4=2R
45.55	-94.07	2/21/76	20:20: 0	MAP	28.55	3	IR1=DH,IR2=DV,A1=1R,A3=1R,A4=2R
45.55	-94.07	2/21/76	20:35: 0	MAP	27.12	3	IR1=SH,IR2=DV,A3=1R,A4=1R
45.55	-94.07	2/21/76	20:50: 0	MAP	25.56	3	IR1=SH,IR2=SVB,A3=1R,A4=1R
45.55	-94.07	2/21/76	21: 5: 0	MAP	23.86	3	IR1=DH,IR2=SVB,A3=1R,A4=1R
45.55	-94.07	2/21/76	21:20: 0	MAP	22.04	3	IR1=SH,IR2=DH,A3=1R,A4=1R
45.55	-94.07	2/21/76	21:35: 0	MAP	20.11	3	IR1=DH,IR2=DV,A3=1R,A4=1R
45.55	-94.07	2/21/76	21:50: 0	MAP	18.08	3	IR1=SH,IR2=DV,A3=1R,A4=1R
45.55	-94.07	2/21/76	22: 5: 0	MAP	15.97	3	IR1=SH,IR2=SVB,A3=1R
45.55	-94.07	2/21/76	22:20: 0	MAP	13.77	3	IR1=DH,IR2=SVB,A3=1R
45.55	-94.07	2/21/76	22:35: 0	MAP	11.50	3	IR1=SH,IR2=DH,A3=1R
45.55	-94.07	2/21/76	23: 5: 0	MAP	6.77	3	IR1=SH,IR2=NO,A3=1R
45.55	-94.07	2/21/76	23:35: 0	MAP	1.84	1	IR1=SH,IR2=DH,A3=1R,SUN OBS.(TREES)
45.55	-94.07	2/22/76	20:35: 0	MAP	27.46	3	IR1=SH,IR2=SVB,A1=1C,A4=1S
45.55	-94.07	2/22/76	20:50: 0	MAP	25.88	3	IR1=DH,IR2=SVB,A1=1C,A4=1S
45.55	-94.07	2/22/76	21: 5: 0	MAP	24.18	3	IR1=SH,IR2=DH,A4=1S
45.55	-94.07	2/22/76	21:20: 0	MAP	22.35	3	IR1=DH,IR2=DV
45.55	-94.07	2/22/76	21:35: 0	MAP	20.42	3	IR1=SH,IR2=DV
45.55	-94.07	2/22/76	21:50: 0	MAP	18.39	3	IR1=SH,IR2=SVB
45.55	-94.07	2/22/76	22:50:57	MAP	9.29	3	IR1=SH,IR2=DV
45.55	-94.07	2/22/76	23: 5: 0	MAP	7.05	2	IR1=DH,IR2=DV,SKY RAD CASTING SHADOW ACROSS TRA ON SOME DA
45.55	-94.07	2/22/76	23:20: 0	MAP	4.60	1	IR1=SH,IR2=DV,SKY RAD CASTING SHADOW ACROSS TRA ON SOME DA
45.55	-94.07	2/22/76	23:35: 0	MAP	2.11	1	IR1=SH,IR2=DV,SKY RAD CASTING SHADOW ACROSS TRA ON SOME DA
45.55	-94.07	2/23/76	14:20: 0	MAP	11.11	1	IR1=SVB,IR2=SH,A1=6R,A2=6R,A3=2R,A4=8R,B1=8R,B2=3R,B3=4R,B
45.55	-94.07	2/23/76	14:35: 0	MAP	13.42	1	IR1=SVB,IR2=DH,A1=6R,A2=6R,A3=2R,A4=6R,B1=6R,B2=3R,B3=4R,B
45.55	-94.07	2/23/76	14:50: 0	MAP	15.66	1	IR1=DH,IR2=SH,A1=4R,A2=3R,A4=4R,B2=1R,LAMBDA DRIVE ON IR2

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
45.55	-94.07	2/23/76	15: 5: 0	MAP	17.83	3	IR1=DV,IR2=DH,A1=4R,A2=3R,A3=4R,A4=3R,B2=1R
45.55	-94.07	2/23/76	15:20: 0	MAP	19.91	3	IR1=DV,IR2=SH,A1=2R,A2=4R,A3=2R,A4=2R,B2=4R,IR2 EL NOT AT
45.55	-94.07	2/23/76	15:35: 0	MAP	21.89	1	IR1=SVB,IR2=SH,A1=6R,A2=2R,A3=8R,A4=3R,B1=5R,B2=3R,B4=2R,P
45.55	-94.07	2/23/76	15:50: 0	MAP	23.77	1	IR1=SVB,IR2=DH,A1=4R,A3=9R,A4=6R,B1=4R,B3=2R,B4=4R,POSSIBL
45.55	-94.07	2/23/76	16: 5: 0	MAP	25.53	1	IR1=DH,IR2=SH,A1=3R,A3=9R,A4=3R,B1=4R,B3=2R,B4=1R,POSSIBLE
45.55	-94.07	2/23/76	16:20: 0	MAP	27.16	3	IR1=DV,IR2=DH,A1=3R,A2=1R,A3=9R,A4=4R,B3=2R
45.55	-94.07	2/23/76	16:35: 0	MAP	28.66	3	IR1=NO,IR2=SH,A1=1R,A3=9R,A4=5R,B3=3R
45.55	-94.07	2/23/76	16:50: 0	MAP	30.01	3	IR1=SVB,IR2=SH,A1=1R,A3=9R,A4=5R
45.55	-94.07	2/23/76	17: 5: 0	MAP	31.20	3	IR1=SVB,IR2=DH,A1=1R,A3=2R,A4=4R
45.55	-94.07	2/23/76	17:20: 0	MAP	32.21	3	IR1=DH,IR2=SH,A1=1R,A3=1R,A4=2R
45.55	-94.07	2/23/76	17:35: 0	MAP	33.04	3	IR1=DV,IR2=DH,A1=1R,A3=1R,A4=2R
45.55	-94.07	2/23/76	17:50: 0	MAP	33.69	3	IR1=DV,IR2=SH,A1=1R,A3=1R,A4=2R
45.55	-94.07	2/23/76	18: 5: 0	MAP	34.14	3	IR1=SVB,IR2=SH,A1=1R,A2=1R,A3=1R,A4=1R
45.55	-94.07	2/23/76	18:20: 0	MAP	34.38	3	IR1=SVB,IR2=DH,A1=1R,A2=1R,A4=1R
45.55	-94.07	2/23/76	18:35: 0	MAP	34.42	3	IR1=DH,IR2=SH,A1=1R,A2=1R,A4=1R
45.55	-94.07	2/23/76	19:35: 0	MAP	32.57	1	IR1=DH,IR2=SVB,A1=5R,A3=1R,A4=3R,POSSIBLE SUN OBS.(CLOUDS)
45.55	-94.07	2/23/76	19:50: 0	MAP	31.63	1	IR1=SH,IR2=DH,A1=3R,A4=3R,B1=2R,B4=3R,POSSIBLE SUN OBS.(CL
45.55	-94.07	2/24/76	17:33:31	MAP	33.38	3	IR1=SH,IR2=DH,LATE
45.55	-94.07	2/24/76	17:45: 0	MAP	33.90	3	IR1=DH,IR2=DV
45.55	-94.07	2/24/76	18: 0: 0	MAP	34.40	3	IR1=SH,IR2=DV
45.55	-94.07	2/24/76	18:15: 0	MAP	34.71	3	IR1=SH,IR2=SVB
45.55	-94.07	2/24/76	18:30: 0	MAP	34.80	3	IR1=DH,IR2=SVB
45.55	-94.07	2/24/76	18:45: 0	MAP	34.69	3	IR1=SH,IR2=DH,A1=1R
45.55	-94.07	2/24/76	19: 0: 0	MAP	34.38	3	IR1=DH,IR2=DV,B4=1R
45.55	-94.07	2/24/76	19:15: 0	MAP	33.96	3	IR1=SH,IR2=DV,A4=1R,B3=1R,CIRRUS FORMING ON HORZ.
45.55	-94.07	2/24/76	19:31:55	MAP	33.05	3	IR1=SH,IR2=SVB,A4=1R,LATE
45.55	-94.07	2/24/76	19:45: 0	MAP	32.25	3	IR1=DH,IR2=SVB,A4=1R
45.55	-94.07	2/24/76	20: 0: 0	MAP	31.18	3	IR1=SH,IR2=DH
45.55	-94.07	2/24/76	20:15: 0	MAP	29.93	3	IR1=DH,IR2=DV
45.55	-94.07	2/24/76	20:30: 0	MAP	28.53	3	IR1=SH,IR2=DV

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
45.55	-94.07	2/24/76	20:45: 0	MAP	26.98	3	IR1=SH,IR2=SVB
45.55	-94.07	2/24/76	21: 0: 0	MAP	25.29	3	IR1=DH,IR2=SVB,TOWER UP.
45.55	-94.07	2/24/76	21:15: 0	MAP	23.49	3	IR1=SH,IR2=DH
45.55	-94.07	2/24/76	21:30: 0	MAP	21.57	3	IR1=DH,IR2=DV
45.55	-94.07	2/24/76	21:45: 0	MAP	19.55	3	IR1=SH,IR2=DV
45.55	-94.07	2/24/76	22: 0: 0	MAP	17.44	3	IR1=SH,IR2=SVB
45.55	-94.07	2/24/76	22:15: 0	MAP	15.24	3	IR1=DH,IR2=SVB
45.55	-94.07	2/24/76	22:30: 0	MAP	12.97	3	IR1=SH,IR2=DH
45.55	-94.07	2/24/76	22:45: 0	MAP	10.64	3	IR1=DH,IR2=DV
45.55	-94.07	2/24/76	23: 0: 0	MAP	8.25	3	IR1=SH,IR2=DV
45.55	-94.07	2/24/76	23:15: 0	MAP	5.81	3	IR1=SH,IR2=DV
45.55	-94.07	2/24/76	23:30: 0	MAP	3.32	1	IR1=SH,IR2=DV,POSSIBLE SUN OBS.(TREES)
45.55	-94.07	2/24/76	23:45: 0	MAP	0.80	1	IR1=SH,IR2=DV,POSSIBLE SUN OBS.(TREES)
45.55	-94.07	2/27/76	18: 5: 0	MAP	35.64	1	IR1=SH,IR2=SVB
45.55	-94.07	2/27/76	18:20: 0	MAP	35.88	1	IR1=DH,IR2=SVB
45.55	-94.07	2/27/76	18:35: 0	MAP	35.91	1	IR1=SH,IR2=DH
45.55	-94.07	2/27/76	18:50:44	MAP	35.72	1	IR1=DH,IR2=DV
48.22	-106.62	3/ 4/76	14:20: 0	MAP	5.39	3	IR1=DV,IR2=SH,A4=1S
48.22	-106.62	3/ 4/76	14:35: 0	MAP	7.78	3	IR1=DV,IR2=DH,A4=1S,STRATUS ON HORZ. < 4 DEG. SKY EL COGGI
48.22	-106.62	3/ 4/76	14:50:12	MAP	10.16	3	IR1=DV,IR2=DH,A3=2S,A4=1S
48.22	-106.62	3/ 4/76	15: 6:25	MAP	12.65	3	IR1=DV,IR2=SH,A3=2S,A4=1S,LATE
48.22	-106.62	3/ 4/76	15:22:29	MAP	15.05	3	IR1=SVB,IR2=SH,A3=2S,A4=1S,LATE
48.22	-106.62	3/ 4/76	15:39:33	MAP	17.52	2	IR1=SVB,IR2=DH,A3=3S,A4=1S,LATE,TRA DATA FAULTY DURING FIR
48.22	-106.62	3/ 4/76	16: 5: 0	MAP	21.02	3	IR1=DV,IR2=DH,A2=2S,A3=7S,A4=1S
48.22	-106.62	3/ 4/76	16:20: 0	MAP	22.96	1	IR1=DV,IR2=SH,A2=3S,A3=8S,A4=2S,B1=1R,B2=2R,B3=2R,B4=1R,C=
48.22	-106.62	3/ 4/76	19:20: 0	MAP	35.57	3	IR1=DH,IR2=SVB,A1=2S,A2=1S,A3=1S,A4=3S,TOWER DOWN.
48.22	-106.62	3/ 4/76	19:35: 0	MAP	35.45	3	IR1=SH,IR2=DH,A1=2S,A2=1S,A3=1S,A4=3S
48.22	-106.62	3/ 4/76	19:50: 0	MAP	35.14	1	IR1=DH,IR2=DV,A1=7R,A2=5S,A3=6R,A4=8R,B1=9R,B3=6R,B4=9R,SU
48.22	-106.62	3/ 5/76	14: 5: 0	MAP	3.26	3	IR1=DV,IR2=SH
48.22	-106.62	3/ 5/76	14:20: 0	MAP	5.69	3	IR1=DV,IR2=SH

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
48.22	-106.62	3/ 5/76	14:35: 0	MAP	8.08	3	IR1=DV,IR2=DH
48.22	-106.62	3/ 5/76	14:50: 0	MAP	10.43	3	IR1=DV,IR2=DH
48.22	-106.62	3/ 5/76	15: 5: 0	MAP	12.74	3	IR1=DV,IR2=SH
48.22	-106.62	3/ 5/76	15:20: 0	MAP	14.99	3	IR1=SVB,IR2=SH
48.22	-106.62	3/ 5/76	15:35: 0	MAP	17.18	3	IR1=SVB,IR2=DH
48.22	-106.62	3/ 5/76	16: 5: 0	MAP	21.34	3	IR1=DV,IR2=DH
48.22	-106.62	3/ 5/76	16:20: 0	MAP	23.30	3	IR1=DV,IR2=SH
48.22	-106.62	3/ 5/76	16:35: 0	MAP	25.15	3	IR1=SVB,IR2=SH
48.22	-106.62	3/ 5/76	16:50: 0	MAP	26.89	2	IR1=SVB,IR2=DH,TRA FROZEN. NOT TRACKING DURING 450 S PART
48.22	-106.62	3/ 5/76	17: 5: 0	MAP	28.52	3	IR1=DH,IR2=SH
48.22	-106.62	3/ 5/76	17:20: 0	MAP	30.01	3	IR1=DV,IR2=DH
48.22	-106.62	3/ 5/76	17:35: 0	MAP	31.36	3	IR1=DV,IR2=SH
48.22	-106.62	3/ 5/76	17:50: 0	MAP	32.55	2	IR1=SVB,IR2=SH
48.22	-106.62	3/ 5/76	18: 5: 0	MAP	33.58	3	IR1=SVB,IR2=DH
48.22	-106.62	3/ 5/76	18:50: 0	MAP	35.59	2	IR1=DV,IR2=SH,A2=3R,A3=2R
47.95	-124.55	4/ 3/76	17: 6:21	MAP	30.62	3	IR1=DH,IR2=SH,A3=2R,B3=2R
47.95	-124.55	4/ 3/76	17:20: 0	MAP	32.58	3	IR1=DV,IR2=DH,A3=2R,B3=2R
47.95	-124.55	4/ 3/76	17:35: 0	MAP	34.66	3	IR1=DV,IR2=SH,A3=2R,B3=2R
47.95	-124.55	4/ 3/76	17:50: 0	MAP	36.63	3	IR1=SVB,IR2=SH,A3=1R,B3=1R
47.95	-124.55	4/ 3/76	18: 5: 0	MAP	38.50	3	IR1=SVB,IR2=DH,A3=1R
47.95	-124.55	4/ 3/76	18:20: 0	MAP	40.24	3	IR1=DH,IR2=SH,A3=1R
47.95	-124.55	4/ 3/76	18:35: 0	MAP	41.83	3	IR1=DV,IR2=DH,A3=1R
47.95	-124.55	4/ 3/76	18:50: 0	MAP	43.26	3	IR1=DV,IR2=SH,A2=1R,A3=2R,B2=1R
47.95	-124.55	4/ 3/76	19: 5: 0	MAP	44.52	3	IR1=SVB,IR2=SH,A2=2R,A3=3R,B2=1R,B3=1R
47.95	-124.55	4/ 3/76	19:20: 0	MAP	45.58	3	IR1=SVB,IR2=DH,A1=1R,A2=3R,A3=2R,B3=2R
47.95	-124.55	4/ 3/76	19:35: 0	MAP	46.44	2	IR1=DH,IR2=SH,A1=7R,A2=7R,A3=5R,A4=3R,B1=2R,B2=3R,INCREASI
47.95	-124.55	4/ 3/76	19:50: 0	MAP	47.07	1	IR1=DV,IR2=DH,A1=5R,A2=7R,A3=3R,A4=3R,B1=3R,B2=3R,C=2R,POS
47.95	-124.55	4/ 3/76	20: 5: 0	MAP	47.47	1	IR1=DV,IR2=SH,A1=5R,A2=7R,A3=5R,A4=4R,B1=4R,B2=5R,B3=5R,B4
47.95	-124.55	4/ 5/76	15:37: 0	MAP	17.30	2	IR1=SVB,IR2=SH,WEATHER SYSTEM OFF,TROUBLE WITH SRV FL MANG
47.95	-124.55	4/ 5/76	15:50: 0	MAP	19.43	3	IR1=SVB,IR2=DH,A1=1R,A2=1R,A3=1R

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
47.95	-124.55	4/ 5/76	16: 5: 0	MAP	21.87	3	IR1=ND,IR2=SH,IR1 GRATING UNDER REPAIR.
47.95	-124.55	4/ 5/76	16:20: 0	MAP	24.27	3	IR1=DV,IR2=DH
47.95	-124.55	4/ 5/76	16:35: 0	MAP	26.63	3	IR1=DV,IR2=SH
47.95	-124.55	4/ 5/76	16:50: 0	MAP	28.94	3	IR1=SVB,IR2=SH
47.95	-124.55	4/ 5/76	17: 5: 0	MAP	31.18	3	IR1=SVB,IR2=DH
47.95	-124.55	4/ 5/76	17:20: 0	MAP	33.35	3	IR1=DH,IR2=SH
47.95	-124.55	4/ 5/76	17:35: 0	MAP	35.43	3	IR1=DV,IR2=DH
47.95	-124.55	4/ 5/76	17:50: 0	MAP	37.41	3	IR1=DV,IR2=SH
47.95	-124.55	4/ 5/76	18: 5: 0	MAP	39.29	3	IR1=SVB,IR2=SH,CLOUDS MOVING IN RAPIDLY FROM SOUTH. STRATO
47.95	-124.55	4/ 6/76	23: 5: 0	MAP	36.14	3	IR1=DH,IR2=SVB,A2=3C,A3=2C
47.95	-124.55	4/ 6/76	23:20: 0	MAP	34.08	3	IR1=SH,IR2=DH,A2=2C,A3=3C
47.95	-124.55	4/ 6/76	23:35: 0	MAP	31.92	3	IR1=DH,IR2=DV,A1=1R,A2=4C,A3=4C,A4=1R
47.95	-124.55	4/ 6/76	23:50: 0	MAP	29.69	3	IR1=SH,IR2=DV,A1=1R,A2=5C,A3=3C,A4=1R
47.95	-124.55	4/ 7/76	0: 5: 0	MAP	27.23	3	IR1=SH,IR2=SVB,A1=1R,A2=3C,A3=3C,A4=1R
47.95	-124.55	4/ 7/76	0:20: 0	MAP	24.88	3	IR1=DH,IR2=SVB,A1=1R,A2=2C,A3=3C,A4=1R
47.95	-124.55	4/ 7/76	0:35: 0	MAP	22.48	3	IR1=SH,IR2=DH,A1=1R,A2=2C,A3=2C,A4=2R
47.95	-124.55	4/ 7/76	0:50: 0	MAP	20.05	1	IR1=DH,IR2=DV,A1=2R,A2=3C,A3=3C,A4=4R,B2=1C,POSS. SUN OBS.
47.95	-124.55	4/ 7/76	1:20: 0	MAP	15.10	1	IR1=SH,IR2=SVB,A1=2R,A2=2C,A3=1C,A4=2R,PROBABLE SUN OBS(CL
47.95	-124.55	4/ 7/76	1:35: 0	MAP	12.61	1	IR1=DH,IR2=SVB,A1=2R,A2=2C,A3=1C,A4=2R,PROB. SUN OBS.(CLDS
37.78	-122.32	4/13/76	15:45:26	MAP	24.40	2	IR1=DV,IR2=SH,A1=5R,A2=1S,A3=1R,A4=4R,TOWER DOWN,SKY EL TR
37.78	-122.32	4/13/76	16: 0: 0	MAP	27.25	2	IR1=SVB,IR2=SH,A1=5R,A2=1R,A3=1R,A4=5R
37.78	-122.32	4/13/76	16:15: 0	MAP	30.16	2	IR1=SVB,IR2=DH,A1=5R,A2=1R,A3=1R,A4=5R
37.78	-122.32	4/13/76	16:30: 0	MAP	33.04	1	IR1=DH,IR2=SH,A1=6R,A2=1R,A4=6R,SOLAR DISC BLOCK NOT SHADO
37.78	-122.32	4/13/76	16:45: 0	MAP	35.88	2	IR1=DV,IR2=DH,A1=4R,A4=6R
37.78	-122.32	4/13/76	17: 0: 0	MAP	38.67	2	IR1=DV,IR2=SH,A1=4R,A3=1R,A4=5R
37.78	-122.32	4/13/76	17:15:13	MAP	41.45	2	IR1=SVB,IR2=SH,A1=1C,A4=4R
37.78	-122.32	4/13/76	17:30:21	MAP	44.14	2	IR1=SVB,IR2=DH,A1=1C,A3=1R,A4=2R
37.78	-122.32	4/13/76	17:45: 0	MAP	46.65	2	IR1=DH,IR2=SH,A1=1C,A3=1C,A4=1R
37.78	-122.32	4/13/76	18:15: 0	MAP	51.46	2	IR1=DV,IR2=SH,A1=1C,A4=1C
37.78	-122.32	4/13/76	18:30: 0	MAP	53.64	2	IR1=SVB,IR2=SH,A1=2C,A3=1C,A4=1R

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
37.78	-122.32	4/13/76	18:45: 0	MAP	55.64	2	IR1=SVR,IR2=DH,A1=1C,A3=2R,A4=1C
37.78	-122.32	4/13/76	19: 0: 0	MAP	57.40	2	IR1=DH,IR2=SH,A1=1C,A3=1R,A4=1C,FIPST FEW TRA PTS. BAD.
37.78	-122.32	4/13/76	19:15: 0	MAP	58.91	2	IR1=DV,IR2=DH,A2=1R,A3=1R,A4=1C
37.78	-122.32	4/13/76	19:30: 0	MAP	60.10	2	IR1=DV,IR2=SH,A1=1C,A2=1R,A3=1R,A4=1C
37.78	-122.32	4/13/76	19:45: 0	MAP	60.95	2	IR1=SVR,IR2=SH,A1=1R,A3=1R,A4=2C
37.78	-122.32	4/13/76	20: 0: 0	MAP	61.43	1	IR1=SVR,IR2=DH,A1=1R,A3=1R,A4=2C,B1=2R,C=2R,POSS. SUN OBS.
37.78	-122.32	4/13/76	20:15: 0	MAP	61.50	1	IR1=DH,IR2=SH,A1=2C,A2=1R,A3=4C,A4=3C,B1=2R,B2=1R,B4=1R,C=
37.78	-122.32	4/13/76	20:30: 0	MAP	61.18	1	IR1=DV,IR2=DH,A1=2C,A2=1R,A3=4C,A4=3C,B1=2R,B2=1R,B4=1R,C=
37.78	-122.32	4/13/76	20:45: 0	MAP	60.47	2	IR1=DV,IR2=SH,A1=1C,A2=1C,A3=3C,A4=2C,B3=2R,B4=1R
37.78	-122.32	4/13/76	21: 0: 0	MAP	59.41	2	IR1=SVR,IR2=SH,A1=1C,A2=1C,A3=5C,A4=2C,B2=1R,B3=3R,B4=1R
37.78	-122.32	4/13/76	21:15: 0	MAP	58.02	1	IR1=SVR,IR2=DH,A1=1C,A3=4C,A4=2C,B1=1R,B2=1R,B3=4R,B4=3R,C
37.78	-122.32	4/13/76	22:45: 0	MAP	45.09	2	IR1=SH,IR2=DH,A1=1C,A3=2C,A4=1C
37.78	-122.32	4/13/76	23:30: 0	MAP	36.98	1	IR1=SH,IR2=SVR,A1=1R,A2=3R,A3=3R,A4=3R,B2=2R,B3=4R,B4=3R,P
37.78	-122.32	4/20/76	13:49:31	MAP	3.48	2	IR1=DH,IR2=SH,A2=3S,A3=2S,4 MIN. LATE,VERY HAZY.
37.78	-122.32	4/20/76	14: 1:30	MAP	5.81	3	IR1=DV,IR2=DH,A2=3S,A3=2S
37.78	-122.32	4/20/76	14:15: 0	MAP	8.44	2	IR1=DV,IR2=SH,A2=3S,A3=2S,SKY EL TROUBLE-MAPS MAY NOT BE G
37.78	-122.32	4/20/76	14:30: 0	MAP	11.38	2	IR1=SVR,IR2=SH,A2=2S,A3=2S,SKY EL TROUBLE-MAPS MAY NOT BE
37.78	-122.32	4/21/76	13:50: 5	MAP	3.80	1	IR1=DH,IR2=SH,A1=9R,A4=8R,B1=6R,B4=7R,C=7R,SUN OBS.(CLDS).
37.78	-122.32	4/21/76	14: 5: 0	MAP	6.69	1	IR1=DV,IR2=DH,A1=9R,A4=8R,B1=7R,B4=6R,C=5R,SUN OBS.(CLDS).
37.78	-122.32	4/21/76	14:20: 0	MAP	9.62	1	IR1=DV,IR2=SH,A1=9R,A4=4R,B1=8R,B4=1R,SUN OBS.(CLDS).
37.78	-122.32	4/21/76	14:35: 0	MAP	12.57	1	IR1=SVR,IR2=SH,A1=6R,A3=2R,A4=4R,B1=1R,B4=1R,SUN OBS.(CLDS
37.78	-122.32	4/21/76	14:50: 0	MAP	15.53	1	IR1=SVR,IR2=DH,A1=3R,A3=2R,A4=2R,POSS. SUN OBS.(CLDS).
37.78	-122.32	4/21/76	15: 5: 0	MAP	18.49	3	IR1=DH,IR=SH,A1=1S,A3=2R.
37.78	-122.32	4/21/76	15:20: 0	MAP	21.46	3	IR1=DV,IR2=DH,A1=1S,A3=5R,A4=1R
37.78	-122.32	4/21/76	15:35: 0	MAP	24.42	2	IR1=DV,IR2=SH,A1=1S,A2=4R,A3=1S,A4=2R,B2=5R,B3=1R,B4=1R,SK
37.78	-122.32	4/21/76	15:50: 0	MAP	27.37	2	IR1=SVR,IR2=SH,A1=1S,A2=5R,A3=6R,A4=4R,B2=5R,B3=6R,SKY EL
37.78	-122.32	4/21/76	16: 5: 0	MAP	30.32	3	IR1=SVR,IR2=DH,A2=4R,A3=9R,A4=5R
37.78	-122.32	4/21/76	16:20: 0	MAP	33.24	1	IR1=DH,IR2=SH,A2=4R,A3=9R,A4=7R,B2=3R,B3=9R,B4=5R,POSS. SU
37.78	-122.32	4/21/76	16:35: 0	MAP	36.13	1	IR1=DV,IR2=DH,A2=7R,A3=8R,A4=6R,B2=8R,B3=9R,B4=4R,POSS. SU
37.78	-122.32	4/26/76	13:26:21	MAP	0.48	1	IR1=DH,IR2=SH,A1=3R,A4=3R,SUN OBS(CLDS),IR1 USING DET. SN

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
37.78	-122.32	4/26/76	13:41:31	MAP	3.36	1	IR1=DH,IR2=SH,A1=2R,A4=2R,SUN OBS.(CLDS).
37.78	-122.32	4/26/76	13:55: 0	MAP	5.95	1	IR1=DV,IR2=SH,A1=2R,A4=2R,SUN OBS(CLDS). CAUTION IR1+IR2 M
37.78	-122.32	4/26/76	14:10: 0	MAP	8.86	1	IR1=DV,IR2=DH,A1=2R,A4=2R,SUN OBS.(CLDS).
37.78	-122.32	4/26/76	14:25: 0	MAP	11.78	3	IR1=DV,IR2=SH,A1=1R,A4=1R,SUN APPEARS TO HAVE RISEN ABOVE
37.78	-122.32	4/26/76	14:40: 0	MAP	14.72	3	IR1=SVR,IR2=SH,A1=1R,A4=1R
37.78	-122.32	4/26/76	14:55: 0	MAP	17.68	3	IR1=SVR,IR2=DH,A1=1R,A4=1R
37.78	-122.32	4/26/76	15:10: 0	MAP	20.64	3	IR1=DH,IR2=SH,A1=1R,A4=1R
37.78	-122.32	4/26/76	15:25: 0	MAP	23.61	3	IR1=DV,IR2=DH,A1=1R,A4=1R
37.78	-122.32	4/26/76	15:40: 0	MAP	26.57	3	IR1=DV,IR2=SH
37.78	-122.32	4/26/76	15:55: 0	MAP	29.53	3	IR1=SVR,IR2=SH
37.78	-122.32	4/26/76	16:10: 0	MAP	32.47	3	IR1=SVR,IR2=DH
37.78	-122.32	4/26/76	16:25: 0	MAP	35.40	2	IR1=DH,IR2=SH,FIRST PTS ON IR2 450NM SCAN RAD.SOLAR DISC B
37.78	-122.32	4/26/76	16:40: 0	MAP	38.30	3	IR1=DV,IR2=DH,SOLAR DISC BLOCK RECENTERED.
37.78	-122.32	4/26/76	16:55: 0	MAP	41.17	2	IR1=DV,IR2=SH,IR1 NOT EXACTLY ON ZERO. FORCED TO ZERO DURI
37.78	-122.32	4/26/76	17:10: 0	MAP	43.99	3	IR1=SVR,IR2=DH
37.78	-122.32	4/26/76	17:25: 0	MAP	46.76	3	IR1=SVB,IR2=DH
37.78	-122.32	4/26/76	17:40: 0	MAP	49.46	3	IR1=DH,IR2=SH
37.78	-122.32	4/26/76	17:55: 0	MAP	52.07	3	IR1=DV,IR2=DH
37.78	-122.32	4/26/76	18:10: 0	MAP	54.57	3	IR1=DV,IR2=SH
37.78	-122.32	4/26/76	18:25: 0	MAP	56.93	3	IR1=SVR,IR2=SH
37.78	-122.32	4/26/76	18:40: 0	MAP	59.11	3	IR1=SVR,IR2=DH
37.78	-122.32	4/26/76	18:55: 0	MAP	61.08	3	IR1=DH,IR2=SH
37.78	-122.32	4/26/76	19:10: 0	MAP	62.79	3	IR1=DV,IR2=DH
37.78	-122.32	4/26/76	19:25: 0	MAP	64.19	3	IR1=DV,IR2=SH
37.78	-122.32	4/26/76	19:40: 0	MAP	65.21	3	IR1=SVR,IR2=SH
37.78	-122.32	4/26/76	19:55: 0	MAP	65.81	3	IR1=SVR,IR2=DH
37.78	-122.32	4/26/76	20:10: 6	MAP	65.96	3	IR1=DH,IR2=SH,TOWER DOWN.
37.78	-122.32	4/26/76	20:25: 0	MAP	65.65	3	IR1=DV,IR2=DH
37.78	-122.32	4/26/76	20:40: 0	MAP	64.90	3	IR1=DV,IR2=SH
37.78	-122.32	4/26/76	20:55: 0	MAP	63.74	3	IR1=SVR,IR2=SH

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
37.78	-122.32	4/26/76	21:10: 0	MAP	62.23	3	IR1=SVR,IR2=DH
37.78	-122.32	4/26/76	21:25: 0	MAP	60.42	3	IR1=DH,IR2=SH
37.78	-122.32	4/26/76	21:40: 0	MAP	58.37	3	IR1=DV,IR2=DH
37.78	-122.32	4/26/76	22:10:34	MAP	53.62	3	IR1=SVB,IR2=SH
37.78	-122.32	4/26/76	22:27:13	MAP	50.79	3	IR1=SVR,IR2=DH
37.78	-122.32	4/26/76	22:40: 0	MAP	48.53	3	IR1=DH,IR2=SH
37.78	-122.32	4/26/76	22:55: 0	MAP	45.81	3	IR1=DV,IR2=DH
37.78	-122.32	4/26/76	23:10: 0	MAP	43.02	3	IR1=DV,IR2=SH
37.78	-122.32	4/26/76	23:25: 0	MAP	40.18	3	IR1=SVR,IR2=SH
37.78	-122.32	4/26/76	23:40: 0	MAP	37.31	3	IR1=SVR,IR2=DH
37.78	-122.32	4/26/76	23:55: 0	MAP	34.40	3	IR1=DH,IR2=SH
37.78	-122.32	4/27/76	0:10: 0	MAP	31.46	3	IR1=DH,IR2=DV,CHANGED SOLAR DISC BLK TO IR1.
37.78	-122.32	4/27/76	0:25: 0	MAP	28.51	3	IR1=SH,IR2=DV
37.78	-122.32	4/27/76	0:40: 0	MAP	25.56	3	IR1=SH,IR2=SVR
37.78	-122.32	4/27/76	0:55: 0	MAP	22.60	3	IR1=DH,IR2=SVB
37.78	-122.32	4/27/76	1:10: 0	MAP	19.63	3	IR1=SH,IR2=DH
37.78	-122.32	4/27/76	1:25: 0	MAP	16.68	3	IR1=DH,IR2=DV
37.78	-122.32	4/27/76	1:40: 0	MAP	13.73	3	IR1=SH,IR2=DV
37.78	-122.32	4/27/76	1:55: 0	MAP	10.80	3	IR1=SH,IR2=SVR
37.78	-122.32	4/27/76	2:10: 0	MAP	7.89	3	IR1=DH,IR2=DV
37.78	-122.32	4/27/76	2:25: 0	MAP	5.00	3	IR1=SH,IR2=DV
37.78	-122.32	4/27/76	2:40: 0	MAP	2.13	1	IR1=SH,IR2=DH,SUN OBS.(BRIDGE&HILL)
37.78	-122.32	4/27/76	2:55: 0	MAP	-0.70	1	IR1=DH,IR2=DH,SUN HAS ALREADY SET. REMOVED SOLAR DISC BLK
34.75	-120.57	5/ 7/76	19:30: 0	MAP	71.10	3	IR1=DH,IR2=SVB,A3=1S,A4=1C,TOWER UP,CLDS. ON HORZ. ONLY,IR
34.75	-120.57	5/ 7/76	19:45: 0	MAP	71.98	3	IR1=SH,IR2=DH,A3=1S,A4=1C, CAUTION IR1 MAY BE OFF BY AS
34.75	-120.57	5/ 7/76	20: 0: 0	MAP	72.27	3	IR1=DH,IR2=DV,A3=1C,A4=1C
34.75	-120.57	5/ 7/76	20:15: 0	MAP	71.93	3	IR1=SH,IR2=DV,A3=1C,A4=1C
34.75	-120.57	5/ 7/76	20:30: 0	MAP	70.99	3	IR1=SH,IR2=SVR,A3=1C,A4=1C
34.75	-120.57	5/ 7/76	20:45: 0	MAP	69.55	3	IR1=DH,IR2=SVR,A3=1C,A4=1C
34.75	-120.57	5/ 7/76	21: 0: 0	MAP	67.69	3	IR1=SH,IR2=DH,A3=1C,A4=1C

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
34.75	-120.57	5/ 7/76	21:15: 0	MAP	65.52	3	IR1=DH,IR2=DV,A3=1C,A4=1C
34.75	-120.57	5/ 7/76	21:45: 0	MAP	60.51	3	IR1=SH,IR2=SVR,A2=1C,A3=1C
34.75	-120.57	5/ 7/76	22: 0: 0	MAP	57.79	3	IR1=DH,IR2=SVR,A2=1C
34.75	-120.57	5/ 7/76	22:15: 0	MAP	54.97	3	IR1=SH,IR2=DH,A2=1C
34.75	-120.57	5/ 7/76	22:30: 0	MAP	52.07	3	IR1=DH,IR2=DV,A2=1C
34.75	-120.57	5/ 7/76	22:45: 0	MAP	49.12	3	IR1=SH,IR2=DV,A2=1C
34.75	-120.57	5/ 7/76	23: 0: 0	MAP	46.12	3	IR1=SH,IR2=SVR,A2=1C
34.75	-120.57	5/ 7/76	23:15: 0	MAP	43.10	3	IR1=DH,IR2=SVR,A2=2C,A4=1S
34.75	-120.57	5/ 7/76	23:30: 0	MAP	40.05	3	IR1=SH,IR2=DH,A1=2S,A2=2S,A3=1C,A4=2S
34.75	-120.57	5/ 7/76	23:45: 0	MAP	36.98	3	IR1=DH,IR2=DV,A1=3S,A2=2S,A3=1C,A4=3S
34.75	-120.57	5/ 7/76	24: 0: 0	MAP	33.91	3	IR1=SH,IR2=DV,A1=5S,A2=3S,A3=1S,A4=3S,R4=1S
34.75	-120.57	5/ 8/76	0:15: 0	MAP	30.62	1	IR1=SH,IR2=SVR,A1=8S,A2=6S,A3=2S,A4=7S,B1=3S,R2=3S,B3=1R,B
34.75	-120.57	5/12/76	13:46:32	MAP	7.97	1	IR1=DV,IR2=DH,A1=1R,A2=1S,A4=1R,1 MIN. LATE,POSS SUN OBSIC
34.75	-120.57	5/12/76	14: 0: 0	MAP	10.63	3	IR1=DV,IR2=SH,A1=1R,A2=1S,SUN APPEARS TO HAVE RISEN ABOVE
34.75	-120.57	5/12/76	14:15: 0	MAP	13.63	3	IR1=SVR,IR2=SH,A2=1S CAUTION IR1 MAY BE OFF BY AS MUCH A
34.75	-120.57	5/12/76	14:30: 0	MAP	16.64	3	IR1=SVR,IR2=DH,A2=1S
34.75	-120.57	5/12/76	14:45: 0	MAP	19.68	3	IR1=DH,IR2=SH,A2=1S
34.75	-120.57	5/12/76	15: 0: 0	MAP	22.73	3	IR1=DV,IR2=DH,A2=1S
34.75	-120.57	5/12/76	15:15: 0	MAP	25.79	3	IR1=DV,IR2=SH,A2=1S
34.75	-120.57	5/12/76	15:30: 0	MAP	28.87	3	IR1=SVR,IR2=SH
34.75	-120.57	5/12/76	15:45: 0	MAP	31.95	3	IR1=SVR,IR2=DH,TEMP+HUM SHIFTING,TEMP LOWERING,HUM RISING,
34.75	-120.57	5/12/76	16: 0: 0	MAP	35.03	3	IR1=DH,IR2=SH
34.75	-120.57	5/12/76	16:15: 0	MAP	38.11	3	IR1=DV,IR2=DH
34.75	-120.57	5/12/76	16:30: 0	MAP	41.18	3	IR1=DV,IR2=SH
34.75	-120.57	5/12/76	16:45: 0	MAP	44.24	3	IR1=SVR,IR2=SH
34.75	-120.57	5/12/76	17: 0: 0	MAP	47.28	3	IR1=SVR,IR2=DH
34.75	-120.57	5/12/76	17:15: 0	MAP	50.29	3	IR1=DH,IR2=SH
34.75	-120.57	5/12/76	17:30: 0	MAP	53.27	3	IR1=DV,IR2=DH
34.75	-120.57	5/12/76	17:45: 0	MAP	56.19	3	IR1=DV,IR2=SH
34.75	-120.57	5/12/76	18: 0: 0	MAP	59.04	3	IR1=SVR,IR2=SH

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
34.75	-120.57	5/12/76	18:15: 0	MAP	61.79	3	IR1=SVP,IR2=DH
34.75	-120.57	5/12/76	18:45: 0	MAP	66.87	3	IR1=DV,IR2=DH
34.75	-120.57	5/12/76	19: 0: 0	MAP	69.08	3	IR1=DV,IR2=SH
34.75	-120.57	5/12/76	19:15: 0	MAP	70.96	3	IR1=SVB,IR2=SH
34.75	-120.57	5/12/76	19:30: 0	MAP	72.41	3	IR1=SVB,IR2=DH
34.75	-120.57	5/12/76	19:45: 0	MAP	73.31	3	IR1=DH,IR2=SH
34.75	-120.57	5/12/76	20: 0: 0	MAP	73.57	3	IR1=DV,IR2=DH
34.75	-120.57	5/12/76	20:15: 0	MAP	73.16	3	IR1=DV,IR2=SH
34.75	-120.57	5/12/76	20:30: 0	MAP	72.13	3	IR1=SVB,IR2=SH
34.75	-120.57	5/12/76	20:45: 0	MAP	70.57	3	IR1=SVB,IR2=DH
34.75	-120.57	5/12/76	21: 0: 0	MAP	68.61	3	IR1=DH,IR2=SH
34.75	-120.57	5/12/76	21:15: 0	MAP	66.34	3	IR1=DV,IR2=DH
34.75	-120.57	5/12/76	21:30: 0	MAP	63.85	3	IR1=DV,IR2=SH
34.75	-120.57	5/12/76	21:45: 0	MAP	61.19	3	IR1=SVB,IR2=SH
34.75	-120.57	5/12/76	22: 0: 0	MAP	58.41	3	IR1=DH,IR2=SVP,MOVED SOLAR DISC BLOCK TO IR1.
34.75	-120.57	5/12/76	22:15: 0	MAP	55.55	3	IR1=SH,IR2=DH
34.75	-120.57	5/12/76	22:30: 0	MAP	52.61	3	IR1=DH,IR2=DV
34.75	-120.57	5/12/76	22:45: 0	MAP	49.63	3	IR1=SH,IR2=DV
34.75	-120.57	5/12/76	23: 0: 0	MAP	46.61	3	IR1=SH,IR2=SVB
34.75	-120.57	5/12/76	23:15: 0	MAP	43.57	3	IR1=DH,IR2=SVB
34.75	-120.57	5/12/76	23:30: 0	MAP	40.51	3	IR1=SH,IR2=DH
34.75	-120.57	5/12/76	23:45: 0	MAP	37.44	3	IR1=DH,IR2=DV,LOADED NEW CASS.
34.75	-120.57	5/12/76	24: 0: 0	MAP	34.36	3	IR1=SH,IR2=DV
34.75	-120.57	5/13/76	0:15: 0	MAP	31.28	3	IR1=SH,IR2=SVB
34.75	-120.57	5/13/76	0:30: 0	MAP	28.20	3	IR1=DH,IR2=SVB
34.75	-120.57	5/13/76	0:45: 0	MAP	25.13	3	IR1=SH,IR2=DH
34.75	-120.57	5/13/76	1: 0: 0	MAP	22.07	3	IR1=DH,IR2=DV
34.75	-120.57	5/13/76	1:15: 0	MAP	19.03	3	IR1=SH,IR2=DV
34.75	-120.57	5/13/76	1:30: 0	MAP	16.00	3	IR1=SH,IR2=SVP
34.75	-120.57	5/13/76	1:45: 0	MAP	12.99	3	IR1=DH,IR2=SVB

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
34.75	-120.57	5/13/76	2: 0: 0	MAP	10.01	3	IR1=SH,IR2=DH
34.75	-120.57	5/13/76	2:15: 0	MAP	7.06	3	IR1=DH,IR2=DV
34.75	-120.57	5/13/76	2:30: 0	MAP	4.14	1	IR1=SH,IR2=DH,A1=1R,POSS. SUN OBS.(CLDS. OR FOG),IR2 GRAT
34.75	-120.57	5/13/76	2:45: 0	MAP	1.26	1	IR1=DH,IR2=DH,A1=1R,SUN OBS.(TREES).
32.82	-117.13	5/19/76	20:50: 0	MAP	70.54	3	IR1=DH,IR2=DV,CFN. QUIT PRIOR TO THIS AQ. WEATHER SYS. IN
32.82	-117.13	5/19/76	21: 6:12	MAP	67.70	3	IR1=SH,IR2=DV,1 MIN. LATE
32.82	-117.13	5/19/76	21:20: 0	MAP	65.14	3	IR1=SH,IR2=SVP
32.82	-117.13	5/19/76	21:35: 0	MAP	62.24	3	IR1=DH,IR2=SVB
32.82	-117.13	5/19/76	21:50: 0	MAP	59.25	3	IR1=SH,IR2=DH
32.82	-117.13	5/19/76	22: 5: 0	MAP	56.21	3	IR1=DH,IR2=DV
32.82	-117.13	5/19/76	22:20: 0	MAP	53.13	3	IR1=SH,IR2=DV
32.82	-117.13	5/19/76	22:35: 0	MAP	50.02	3	IR1=SH,IR2=SVB
32.82	-117.13	5/19/76	22:50: 0	MAP	46.89	3	IR1=DH,IR2=SVP
32.82	-117.13	5/19/76	23: 5: 0	MAP	43.75	3	IR1=SH,IR2=DH
32.82	-117.13	5/19/76	23:20: 0	MAP	40.60	3	IR1=DH,IR2=DV,A1=1S,A4=1S
32.82	-117.13	5/19/76	23:35: 0	MAP	37.45	3	IR1=SH,IR2=DV,A1=2S,A4=2S
32.82	-117.13	5/19/76	23:50: 0	MAP	34.31	1	IR1=SH,IR2=SVB,A1=6S,A4=8S,B1=1S,B4=2S,POSS. SUN OBS.(CLDS
32.82	-117.13	5/20/76	0: 5: 0	MAP	31.16	1	IR1=DH,IR2=SVB,A1=7S,A4=8S,B1=2S,B4=3S,POSS. SUN OBS.(CLDS
32.82	-117.13	5/20/76	0:20: 0	MAP	28.02	1	IR1=SH,IR2=DH,A1=7S,A4=6S,B1=6S,B4=6S,POSS SUN OBS.(CLDS).
32.82	-117.13	5/26/76	19:40: 0	MAP	78.38	3	IR1=DH,IR2=DV
32.82	-117.13	5/26/76	19:55: 0	MAP	78.26	3	IR1=SH,IR2=DV
32.82	-117.13	5/26/76	20:10: 0	MAP	77.24	3	IR1=SH,IR2=SVB
32.82	-117.13	5/26/76	20:25: 0	MAP	75.51	3	IR1=DH,IR2=SVB
32.82	-117.13	5/26/76	20:40: 0	MAP	73.29	3	IR1=SH,IR2=DH
32.82	-117.13	5/26/76	20:55: 0	MAP	70.75	3	IR1=DH,IP2=DV
32.82	-117.13	5/26/76	21:10: 0	MAP	68.00	3	IR1=SH,IR2=DV
32.82	-117.13	5/26/76	21:25: 0	MAP	65.12	3	IR1=SH,IP2=SVB
32.82	-117.13	5/26/76	21:40: 0	MAP	62.14	3	IR1=DH,IP2=SVB
32.82	-117.13	5/26/76	21:55: 0	MAP	59.11	3	IR1=SH,IP2=DH
32.82	-117.13	5/26/76	22:10: 0	MAP	56.03	3	IR1=DH,IP2=DV,IR1 N.G.>70NM.

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
32.82	-117.13	5/26/76	22:25: 0	MAP	52.92	3	IR1=SH,IR2=DV,IR1 N.G.>78ONM.
32.82	-117.13	5/26/76	22:40: 0	MAP	49.79	3	IR1=SH,IR2=SVB,IR1 N.G. >78ONM.
32.82	-117.13	5/26/76	22:55: 0	MAP	46.65	3	IR1=DH,IR2=SVB,IR1 N.G. >78ONM.
32.82	-117.13	5/26/76	23:10: 0	MAP	43.50	2	IR1=SH,IR2=DH,IR1 N.G. >78ONM, POSS SUN OBS. FOG OR STRAT
32.82	-117.13	5/26/76	23:25: 0	MAP	40.35	2	IR1=DH,IR2=DV,IR1 N.G. >78ONM, POSS SUN OBS.(CLDS).
32.82	-117.13	5/26/76	23:40: 0	MAP	37.20	2	IR1=SH,IR2=DV,IR1 N.G. >78ONM, POSS SUN OBS.(CLDS).
32.82	-117.13	5/26/76	23:55: 0	MAP	34.06	2	IR1=SH,IR2=SVB,IR1 N.G. >78ONM, POSS SUN OBS.(CLDS).
32.82	-117.13	5/27/76	0:10: 0	MAP	30.92	1	IR1=DH,IR2=SVB,A1=5S,A4=5S,B1=4S,B4=4S,IR1 N.G. >78ONM, SU
32.82	-117.13	5/27/76	0:25: 0	MAP	27.79	1	IR1=SH,IR2=DH,A1=5S,A4=5S,B1=4S,B4=4S,IR1 N.G. >78ONM, SUN
32.19	-110.87	6/ 7/76	20:45: 0	MAP	69.51	3	IR1=SH,IR2=DV,A2=3C,A3=6C, CAUTION MI GRATING SHIFT MAY H
32.19	-110.87	6/ 7/76	21: 0: 0	MAP	66.52	3	IR1=SH,IR2=SVB,A2=4C,A3=5C
32.19	-110.87	6/ 7/76	21:15: 0	MAP	63.46	3	IR1=DH,IR2=SVB,A2=4C,A3=5C
32.19	-110.87	6/ 7/76	21:30: 0	MAP	60.36	3	IR1=SH,IR2=DH,A2=4C,A3=5C
32.19	-110.87	6/ 7/76	21:45: 0	MAP	57.22	3	IR1=DH,IR2=DV,A2=5C,A3=3C
32.19	-110.87	6/ 7/76	22: 0: 0	MAP	54.07	3	IR1=SH,IR2=DV,A2=5C,A3=3C
32.19	-110.87	6/ 7/76	22:15: 0	MAP	50.90	3	IR1=SH,IR2=SVB,A2=6C,A3=3C
32.19	-110.87	6/ 7/76	22:30: 0	MAP	47.73	3	IR1=DH,IR2=SVB,A2=6C,A3=2C
32.19	-120.87	6/ 7/76	22:45: 0	MAP	44.56	3	IR1=SH,IR2=DH,A2=6C,A3=2C
32.19	-110.87	6/ 7/76	23: 0: 0	MAP	41.39	3	IR1=DH,IR2=DV,A2=6C,A3=2C
32.19	-110.87	6/ 7/76	23:15: 0	MAP	38.22	3	IR1=SH,IR2=DV,A2=4C,A3=2C
32.19	-110.87	6/ 7/76	23:30: 0	MAP	35.06	3	IR1=SH,IR2=SVB,A2=2C,A3=1C
32.19	-110.87	6/ 7/76	23:45: 0	MAP	31.92	3	IR1=DH,IR2=SVB,A2=2C,A3=1C
32.19	-110.87	6/ 8/76	24: 0: 0	MAP	28.79	3	IR1=SH,IR2=DH,A2=2C,A3=1C
32.19	-110.87	6/ 8/76	0:15: 0	MAP	25.67	3	IR1=DH,IR2=DV,A2=1C,A3=1C
32.19	-110.87	6/ 8/76	0:30: 0	MAP	22.58	3	IR1=SH,IR2=DV,A2=1C,A3=1C
32.19	-110.87	6/ 8/76	0:45: 0	MAP	19.50	3	IR1=SH,IR2=SVB,A2=1C,A3=1C
32.19	-110.87	6/ 8/76	1: 0: 0	MAP	16.46	3	IR1=DH,IR2=SVB,A2=2C
32.19	-110.87	6/ 8/76	1:15: 0	MAP	13.44	3	IR1=SH,IR2=DH,A2=2C
32.19	-110.87	6/ 8/76	1:30: 0	MAP	10.45	3	IR1=DH,IR2=DV,A2=1C
32.19	-110.87	6/ 8/76	1:45: 0	MAP	7.49	3	IR1=SH,IR2=DV,A2=1C

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
32.19	-110.87	6/ 8/76	2: 0: 0	MAP	4.58	2	IR1=SH,IR2=DH,A2=IC,IR2 PARTIALLY OBS. FROM SUN AT POLE DU
32.19	-110.87	6/ 8/76	2:15: 0	MAP	1.71	3	IR1=SH,IR2=DH,A2=IC
32.19	-110.87	6/ 8/76	15:20: 0	MAP	36.14	3	IR1=DH,IR2=SH, CAUTION GRATING SHIFTS MAY HAVE CAUSED IR1
32.19	-110.87	6/ 8/76	15:35: 0	MAP	39.30	3	IR1=DV,IR2=DH
32.19	-110.87	6/ 8/76	15:50: 0	MAP	42.47	3	IR1=DV,IR2=SH
32.19	-110.87	6/ 8/76	16: 5: 0	MAP	45.64	3	IR1=SVP,IR2=SH
32.19	-110.87	6/ 8/76	16:20: 0	MAP	48.82	3	IR1=SVB,IR2=DH
32.19	-110.87	6/ 8/76	16:35: 0	MAP	51.99	3	IR1=DH,IR2=SH
32.19	-110.87	6/ 8/76	16:50: 0	MAP	55.15	3	IR1=DV,IR2=DH
32.19	-110.87	6/ 8/76	17: 5: 0	MAP	58.30	3	IR1=DV,IR2=SH
32.19	-110.87	6/ 8/76	17:20: 0	MAP	61.43	3	IR1=SVP,IR2=SH
32.19	-110.87	6/ 8/76	17:35: 0	MAP	64.52	3	IR1=SVB,IR2=DH
32.19	-110.87	6/ 8/76	17:50: 0	MAP	67.57	3	IR1=DH,IR2=SH
32.19	-110.87	6/ 8/76	18: 5: 0	MAP	70.53	3	IR1=DV,IR2=DH
32.19	-110.87	6/ 8/76	18:20: 0	MAP	73.37	3	IR1=DV,IR2=SH
32.19	-110.87	6/ 8/76	18:35: 0	MAP	76.00	3	IR1=SVB,IR2=SH
32.19	-110.87	6/ 8/76	18:50: 0	MAP	78.28	3	IR1=SVP,IR2=DH
32.19	-110.87	6/ 8/76	19: 5: 0	MAP	79.96	3	IR1=DH,IR2=SH
32.19	-110.87	6/ 8/76	19:20: 0	MAP	80.72	3	IR1=DH,IR2=DV
32.19	-110.87	6/ 8/76	19:35: 0	MAP	80.34	3	IR1=SH,IR2=DV
32.19	-110.87	6/ 8/76	19:50: 0	MAP	78.92	3	IR1=SH,IR2=SVP
32.19	-110.87	6/ 8/76	20:35: 0	MAP	71.50	3	IR1=DH,IR2=DV
32.19	-110.87	6/ 8/76	20:50: 0	MAP	68.57	3	IR1=SH,IR2=DV
32.19	-110.87	6/ 8/76	21: 5: 0	MAP	65.55	3	IR1=SH,IR2=SVP
32.19	-110.87	6/ 8/76	21:20: 0	MAP	62.47	3	IR1=DH,IR2=SVP
32.19	-110.87	6/ 8/76	21:35: 0	MAP	59.35	3	IR1=SH,IR2=DH
32.19	-110.87	6/ 8/76	21:50: 0	MAP	56.21	3	IR1=DH,IR2=DV
32.19	-110.87	6/ 8/76	22: 5: 0	MAP	53.05	3	IR1=SH,IR2=DV
32.19	-110.87	6/ 8/76	22:20: 0	MAP	49.88	3	IR1=SH,IR2=SVP
32.19	-110.87	6/ 8/76	22:35: 0	MAP	46.71	3	IR1=DH,IR2=SVP

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
32.19	-110.87	6/ 8/76	22:50: 0	MAP	43.53	3	IR1=SH,IR2=DH
32.19	-110.87	6/ 8/76	23: 5: 0	MAP	40.37	3	IR1=DH,IR2=DV
32.19	-110.87	6/ 8/76	23:20: 0	MAP	37.20	3	IR1=SH,IR2=DV
32.19	-110.87	6/ 8/76	23:35: 0	MAP	34.05	3	IR1=SH,IR2=SVR
32.19	-110.87	6/ 8/76	23:50: 0	MAP	30.91	3	IR1=DH,IR2=SVR
32.19	-110.87	6/ 9/76	0: 5: 0	MAP	27.78	3	IR1=SH,IR2=DH
32.19	-110.87	6/ 9/76	0:20: 0	MAP	24.68	3	IR1=DH,IR2=DV
32.19	-110.87	6/ 9/76	0:35: 0	MAP	21.59	3	IR1=SH,IR2=DV
32.19	-110.87	6/ 9/76	0:50: 0	MAP	18.53	3	IR1=SH,IR2=SVR
32.19	-110.87	6/ 9/76	1: 5: 0	MAP	15.49	3	IR1=DH,IR2=SVR
32.19	-110.87	6/ 9/76	1:20: 0	MAP	12.48	3	IR1=SH,IR2=DH
32.19	-110.87	6/ 9/76	15:36:26	MAP	39.64	3	IR1=DV,IR2=DH,PRESS+W.D. READINGS N.G. FOR ALL AOS. THIS D
32.19	-110.87	6/ 9/76	15:50: 0	MAP	42.50	3	IR1=DV,IR2=SH, CAUTION SHIFT ON MI GRATING MAY HAVE CAUSF
32.19	-110.87	6/ 9/76	16: 5: 0	MAP	45.67	3	IR1=SVR,IR2=SH
32.19	-110.87	6/ 9/76	16:20:50	MAP	49.02	3	IR1=SVR,IR2=DH
32.19	-110.87	6/ 9/76	16:35: 0	MAP	52.02	3	IR1=DH,IR2=SH
32.19	-110.87	6/ 9/76	16:50: 0	MAP	55.18	3	IR1=DV,IR2=DH
32.19	-110.87	6/ 9/76	17: 5: 0	MAP	58.34	3	IR1=DV,IR2=SH
32.19	-110.87	6/ 9/76	17:20: 0	MAP	61.47	3	IR1=SVR,IR2=SH
32.19	-110.87	6/ 9/76	17:35: 0	MAP	64.56	3	IR1=SVR,IR2=DH
32.19	-110.87	6/ 9/76	17:50: 0	MAP	67.61	3	IR1=DH,IR2=SH
32.19	-110.87	6/ 9/76	18: 5: 0	MAP	70.57	3	IR1=DV,IR2=DH
32.19	-110.87	6/ 9/76	18:20: 0	MAP	73.42	3	IR1=DV,IR2=SH
32.19	-110.87	6/ 9/76	18:35: 0	MAP	76.05	3	IR1=SVR,IR2=SH
32.19	-110.87	6/ 9/76	18:50: 0	MAP	78.34	3	IR1=SVR,IR2=DH
32.19	-110.87	6/ 9/76	19: 5: 0	MAP	80.04	3	IR1=DH,IR2=SH
32.19	-110.87	6/ 9/76	19:20: 0	MAP	80.81	3	IR1=DH,IR2=DV
32.19	-110.87	6/ 9/76	19:35: 0	MAP	80.42	3	IR1=SH,IR2=DV
32.19	-110.87	6/ 9/76	19:52:12	MAP	78.72	2	IR1=SH,IR2=SVR,2 MIN. LATE, 450 + 650NM MAPS FOR SKYRAD N.
32.19	-110.87	6/ 9/76	20: 5: 0	MAP	76.87	3	IR1=DH,IR2=SVR, GUSTS BLOWING DUST IN AREA.

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
32.19	-110.87	6/ 9/76	20:20: 0	MAP	74.33	3	IR1=SH,IR2=DH
32.19	-110.87	6/11/76	13:15: 0	MAP	10.59	3	IR1=DH,IR2=SH, CAUTION SHIFT ON HI GRATING MAY HAVE CAUSE
32.19	-110.87	6/11/76	13:30: 0	MAP	13.58	3	IR1=DV,IR2=DH
32.19	-110.87	6/11/76	13:45: 0	MAP	16.60	3	IR1=DV,IR2=SH
32.19	-110.87	6/11/76	14: 0: 0	MAP	19.64	2	IR1=SVB,IR2=SH, PHONE TRANSMITTING.
32.19	-110.87	6/11/76	14:15: 0	MAP	22.71	3	IR1=SVB,IR2=DH
32.19	-110.87	6/11/76	14:30: 0	MAP	25.80	3	IR1=DH,IR2=SH
32.19	-110.87	6/11/76	14:45: 0	MAP	28.91	3	IR1=DV,IR2=DH
32.19	-110.87	6/11/76	15: 0: 0	MAP	32.04	3	IR1=DV,IR2=SH
32.19	-110.87	6/11/76	15:15: 0	MAP	35.18	3	IR1=SVB,IR2=SH
32.19	-110.87	6/11/76	15:30: 0	MAP	38.34	3	IR1=SVB,IR2=DH
32.19	-110.87	6/11/76	15:45: 0	MAP	41.50	3	IR1=DH,IR2=SH
32.19	-110.87	6/11/76	16: 0: 0	MAP	44.67	3	IR1=DV,IR2=DH
32.19	-110.87	6/11/76	16:15: 0	MAP	47.85	3	IR1=DV,IR2=SH
32.19	-110.87	6/11/76	16:30: 0	MAP	51.02	3	IR1=SVB,IR2=SH
32.19	-110.87	6/11/76	16:45: 0	MAP	54.19	3	IR1=SVB,IR2=DH
32.19	-110.87	6/11/76	17: 0: 0	MAP	57.35	3	IR1=DH,IR2=SH
32.19	-110.87	6/11/76	17:15: 0	MAP	60.49	2	IR1=DV,IR2=DH,PHONE TRANSMITTING.
32.19	-110.87	6/11/76	17:30: 0	MAP	63.60	3	IR1=DV,IR2=SH
32.19	-110.87	6/11/76	17:45: 0	MAP	66.67	3	IR1=SVB,IR2=SH
32.19	-110.87	6/11/76	18: 0: 0	MAP	69.67	3	IR1=SVB,IR2=DH
32.19	-110.87	6/11/76	18:15: 0	MAP	72.57	3	IR1=DH,IR2=SH
32.19	-110.87	6/11/76	18:30: 0	MAP	75.30	3	IR1=DV,IR2=DH
32.19	-110.87	6/11/76	18:45: 0	MAP	77.74	3	IR1=DV,IR2=SH
32.19	-110.87	6/11/76	19: 0: 0	MAP	79.69	3	IR1=SVB,IR2=SH
32.19	-110.87	6/11/76	19:15: 0	MAP	80.82	3	IR1=SVB,IR2=DH
32.19	-110.87	6/11/76	19:30: 0	MAP	80.82	3	IR1=DH,IR2=SH
32.19	-110.87	6/17/76	12:21:52	MAP	0.12	1	IR1=DV,IR2=SH,SUN DPS(MTS), TOWER UP, PRESS + W.D. READING
32.19	-110.87	6/17/76	12:38:48	MAP	3.32	3	IR1=DV,IR2=DH
32.19	-110.87	6/17/76	12:53:22	MAP	6.11	3	IR1=DH,IR2=SH

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
32.19	-110.87	6/17/76	13: 6:24	MAP	8.65	3	IR1=DV,IR2=DH
32.19	-110.87	6/17/76	13:20: 0	MAP	11.33	3	IR1=DV,IR2=SH
32.19	-110.87	6/17/76	13:35: 0	MAP	14.31	3	IR1=SVB,IR2=SH
32.19	-110.87	6/17/76	13:50: 0	MAP	17.33	3	IR1=SVB,IR2=DH
32.19	-110.87	6/17/76	14: 5: 0	MAP	20.38	3	IR1=DH,IR2=SH
32.19	-110.87	6/17/76	14:20: 0	MAP	23.45	3	IR1=DV,IR2=DH
32.19	-110.87	6/17/76	14:35: 0	MAP	26.54	3	IR1=DV,IR2=SH
32.19	-110.87	6/17/76	14:50: 0	MAP	29.65	3	IR1=SVB,IR2=SH
32.19	-110.87	6/17/76	15: 5: 0	MAP	32.78	3	IR1=SVB,IR2=DH
32.19	-110.87	6/17/76	15:20: 0	MAP	35.93	3	IR1=DH,IR2=SH
32.19	-110.87	6/17/76	15:35: 0	MAP	39.08	3	IR1=DV,IR2=DH
32.19	-110.87	6/17/76	15:50: 0	MAP	42.24	3	IR1=DV,IR2=SH
32.19	-110.87	6/17/76	16: 5: 0	MAP	45.41	3	IR1=SVB,IR2=SH
32.19	-110.87	6/17/76	16:20: 0	MAP	48.59	3	IR1=SVB,IR2=DH
32.19	-110.87	6/17/76	16:35: 0	MAP	51.76	3	IR1=DH,IR2=SH
32.19	-110.87	6/17/76	16:50: 0	MAP	54.93	3	IR1=DV,IR2=DH
32.19	-110.87	6/17/76	17: 5: 0	MAP	58.09	3	IR1=DV,IR2=SH
32.19	-110.87	6/17/76	17:20: 0	MAP	61.23	3	IR1=SVB,IR2=SH
32.19	-110.87	6/17/76	17:35: 0	MAP	64.34	3	IR1=SVB,IR2=DH
32.19	-110.87	6/17/76	17:50: 0	MAP	67.40	3	IR1=ND,IR2=SH,IR1 LEFT OUT.
32.19	-110.87	6/17/76	18: 5: 0	MAP	70.40	3	IR1=DV,IR2=DH
32.19	-110.87	6/17/76	18:20: 0	MAP	73.29	3	IR1=DV,IR2=SH
32.19	-110.87	6/17/76	18:35: 0	MAP	75.99	3	IR1=SVB,IR2=SH
32.19	-110.87	6/17/76	18:50: 0	MAP	78.39	3	IR1=SVB,IR2=DH
32.19	-110.87	6/17/76	19: 5: 0	MAP	80.23	3	IR1=DH,IR2=SH
32.19	-110.87	6/17/76	19:20: 0	MAP	81.18	3	IR1=DV,IR2=DH,SCATTERED CUMULUS CLOUDS FORMING OVER ENTIRE
35.02	-110.68	6/28/76	12:15: 0	MAP	-0.10	2	IR1=DH,IR2=SH,A1=1S,TOWER UP, WD READINGS N.G. FOR ALL AOS
35.02	-110.68	6/28/76	13: 0: 0	MAP	8.19	3	IR1=DV,IR2=SH,A1=1S
35.02	-110.68	6/28/76	13:15: 0	MAP	11.04	3	IR1=SVB,IR2=SH,A1=1S
35.02	-110.68	6/28/76	13:30: 0	MAP	13.93	3	IR1=SVB,IR2=DH,A1=1S

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
35.02	-110.68	6/28/76	13:45: 0	MAP	16.85	3	IP1=DH,IR2=SH,A1=1S
35.02	-110.68	6/28/76	14: 0: 0	MAP	19.80	3	IR1=DV,IR2=DH
35.02	-110.68	6/28/76	14:15: 0	MAP	22.78	3	IR1=DV,IR2=SH
35.02	-110.68	6/28/76	14:30: 0	MAP	25.78	3	IR1=SVR,IR2=SH
35.02	-110.68	6/28/76	14:45: 0	MAP	28.80	3	IR1=SVR,IR2=DH
35.02	-110.68	6/28/76	15: 0: 0	MAP	31.84	3	IP1=DH,IR2=SH
35.02	-110.68	6/28/76	15:15: 0	MAP	34.89	3	IP1=DV,IR2=DH
35.02	-110.68	6/28/76	15:30: 0	MAP	37.95	3	IR1=DV,IR2=SH
35.02	-110.68	6/28/76	15:45: 0	MAP	41.02	3	IR1=SVR,IR2=SH
35.02	-110.68	6/28/76	16: 0: 0	MAP	44.09	3	IR1=SVR,IR2=DH,IP2 NOT AT 90 DEG. EL FOR FIRST PART OF 450
35.02	-110.68	6/28/76	16:15: 0	MAP	47.16	3	IR1=DH,IR2=SH
35.02	-110.68	6/28/76	16:30: 0	MAP	50.22	3	IR1=DV,IR2=DH
35.02	-110.68	6/28/76	16:45: 0	MAP	53.27	3	IR1=DV,IR2=SH
35.02	-110.68	6/28/76	17: 0: 0	MAP	56.30	3	IP1=SVR,IR2=SH
35.02	-110.68	6/28/76	17:15: 0	MAP	59.31	3	IP1=SVR,IR2=DH
35.02	-110.68	6/28/76	17:30: 0	MAP	62.27	3	IR1=DH,IR2=SH
35.02	-110.68	6/28/76	17:45: 0	MAP	65.17	3	IR1=DV,IR2=DH,A1=1C,A4=1C
35.02	-110.68	6/28/76	18: 0: 0	MAP	67.97	3	IR1=DV,IR2=SH,A1=1C,A4=1C
35.02	-110.68	6/28/76	18:15: 0	MAP	70.65	3	IR1=SVR,IR2=SH,A1=4C,A4=1C
35.02	-110.68	6/28/76	18:30: 0	MAP	73.12	3	IR1=SVR,IR2=DH,A1=4C,A2=1C,A4=1C
35.02	-110.68	6/28/76	18:45: 0	MAP	75.28	3	IR1=DH,IR2=SH,A1=5C,A2=1C,A4=1C
35.02	-110.68	6/28/76	19: 0: 0	MAP	76.98	3	IR1=DV,IR2=DH,A1=6C,A2=1C,A3=1C,A4=2C
35.02	-110.68	6/28/76	19:15: 0	MAP	78.02	3	IR1=DV,IR2=SH,A1=8C,A3=1C,A4=2C
35.02	-110.68	6/28/76	19:30: 0	MAP	78.21	3	IR1=SVR,IR2=SH,A1=8C,A3=1C,A4=4C
34.92	-92.15	7/14/76	14:12: 8	MAP	35.79	3	IR1=DV,IR2=DH, TOWER UP
34.92	-92.15	7/14/76	14:26:59	MAP	38.83	3	IR1=DV,IR2=SH
34.92	-92.15	7/14/76	14:40: 0	MAP	41.50	3	IP1=SVR,IR2=SH
34.92	-92.15	7/14/76	14:55: 0	MAP	44.57	3	IR1=SVR,IP2=DH
34.92	-92.15	7/14/76	15:10: 0	MAP	47.64	3	IP1=DH,IR2=SH
34.92	-92.15	7/14/76	15:25: 0	MAP	50.69	3	IR1=DV,IR2=DH

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
34.92	-92.15	7/14/76	15:40: 0	MAP	53.72	3	IR1=DV,IR2=SH
34.92	-92.15	7/14/76	15:55: 0	MAP	56.72	3	IR1=SVR,IR2=SH,A1=1C
34.92	-92.15	7/14/76	16:10: 0	MAP	59.67	2	IR1=SVR,IR2=DH,A1=2C,A2=3C,A4=1C,C=2C
34.92	-92.15	7/14/76	16:27: 9	MAP	62.98	2	IR1=DH,IR2=SH,CLOUDS MOVING IN QUICKLY A1=6C,A2=8C,A3=1C,A
34.92	-92.15	7/19/76	11:25: 0	MAP	2.20	1	IR1=DH,IR2=SH,A4=3S SUN OBS - CIRRUS IR1(450) = 7.27-
34.92	-92.15	7/19/76	11:40: 0	MAP	5.03	1	IR1=DV,IR2=DH,A4=3S SUN OBS - CIRRUS PULLING CLEAR THO
34.92	-92.15	7/19/76	11:55: 0	MAP	7.91	1	IR1=DV,IR2=SH,A3=1S,A4=3S,B3=1S SUN OBS
34.92	-92.15	7/19/76	12:10: 0	MAP	10.81	1	IR1=DV,IR2=SH,A3=2S,A4=4S SUN OBS-CIRRUS
34.92	-92.15	7/19/76	12:25: 0	MAP	13.76	1	IR1=SVB,IR2=SH,A3=3S,A4=5S SUN OBS-CIRRUS
34.92	-92.15	7/19/76	12:40: 0	MAP	16.72	1	IR1=SVR,IR2=DH,A3=4S,A4=7S,B3=6S,B4=8S SUN OBS
34.92	-92.15	7/19/76	13:40: 0	MAP	28.82	3	IR1=SVR,IR2=SH
34.92	-92.15	7/19/76	13:55: 0	MAP	31.88	3	IR1=SVR,IR2=DH
34.92	-92.15	7/19/76	14:10: 0	MAP	34.95	3	IR1=DH,IR2=SH
34.92	-92.15	7/19/76	14:25: 0	MAP	38.02	3	IR1=DV,IR2=DH
34.92	-92.15	7/19/76	14:40: 0	MAP	41.10	3	IR1=DV,IR2=SH,A3=2S
34.92	-92.15	7/19/76	14:55: 0	MAP	44.16	3	IR1=SVB,IR2=SH,A3=3S
34.92	-92.15	7/19/76	15:10: 0	MAP	47.22	3	IR1=SVR,IR2=DH,A3=3S
34.92	-92.15	7/19/76	15:25: 0	MAP	50.27	3	IR1=DH,IR2=SH,A3=2S
34.92	-92.15	7/19/76	15:40: 0	MAP	53.29	3	IR1=DV,IR2=DH,A3=2S
34.92	-92.15	7/19/76	15:55: 0	MAP	56.27	3	IR1=DV,IR2=SH,A2=5S,A3=5S,B2=2S,B3=1S
34.92	-92.15	7/19/76	16:10: 0	MAP	59.20	2	IR1=SVR,IR2=SH,A1=1S,A2=8S,A3=5S,A4=2S,B2=[illegible]S,B3=9S,B4=5S,C
34.92	-92.15	7/20/76	11:32:53	MAP	3.57	3	IR1=DH,IR2=SH
34.92	-92.15	7/20/76	11:46: 7	MAP	6.09	3	IR1=DV,IR2=DH A3=2S
34.92	-92.15	7/20/76	12: 0: 0	MAP	8.77	3	IR1=DV,IR2=DH
34.92	-92.15	7/20/76	12:15: 0	MAP	11.69	3	IR1=DV,IR2=SH,A3=3S,B3=3S STRAT-CUM MOVING IN FAST FROM
34.92	-92.15	7/20/76	12:30: 0	MAP	14.64	3	IR1=SVR,IR2=SH,A2=2S,A3=5S,A4=2S,B2=3S,B4=3S,C=6S
34.92	-92.15	7/21/76	11:20: 0	MAP	1.04	3	IR1=DH,IR2=SH,A2=1S POSSIBLE SUN OBS-CIRRUS
34.92	-92.15	7/21/76	11:35: 0	MAP	3.96	3	IR1=DH,IR2=SH,A2=2S
34.92	-92.15	7/21/76	11:50: 0	MAP	6.73	3	IR1=DV,IR2=DH,A3=1S
34.92	-92.15	7/21/76	12: 5: 0	MAP	9.63	3	IR1=DV,IR2=SH

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
34.92	-92.15	7/21/76	12:20: 0	MAP	12.56	3	IR1=SVR,IR2=SH
34.92	-92.15	7/21/76	12:35: 0	MAP	15.53	3	IR1=SVR,IR2=DH
34.92	-92.15	7/21/76	12:50: 0	MAP	18.52	3	IR1=DH,IR2=SH
34.92	-92.15	7/21/76	13: 5: 0	MAP	21.53	3	IR1=DV,IR2=DH
34.92	-92.15	7/21/76	13:20: 0	MAP	24.57	3	IR1=DV,IR2=SH
34.92	-92.15	7/21/76	13:35: 0	MAP	27.61	3	IR1=SVR,IR2=SH
34.92	-92.15	7/21/76	13:50: 0	MAP	30.67	3	IR1=SVR,IR2=DH
34.92	-92.15	7/21/76	14: 5: 0	MAP	33.74	3	IR1=DH,IR2=SH
34.92	-92.15	7/21/76	14:20: 0	MAP	36.81	3	IR1=DV,IR2=DH
34.92	-92.15	7/21/76	14:35: 0	MAP	39.89	3	IR1=DV,IR2=SH
34.92	-92.15	7/21/76	14:50: 0	MAP	42.96	3	IR1=SVR,IR2=SH
34.92	-92.15	7/21/76	15: 5: 0	MAP	46.02	3	IR1=SVR,IR2=DH
34.92	-92.15	7/21/76	15:20: 0	MAP	49.06	3	IR1=DH,IR2=SH
34.92	-92.15	7/21/76	15:35: 0	MAP	52.09	3	IR1=DV,IR2=DH
34.92	-92.15	7/21/76	16:20: 0	MAP	60.90	3	IR1=SVR,IR2=DH SET SCREW TIGHTENED ON IR2 GRATING
34.92	-92.15	7/21/76	16:35: 0	MAP	63.69	3	IR1=DH,IR2=SH PUFFY CLOUDS(CIRRUS) STARTING TO FORM THEN
34.92	-92.15	7/21/76	16:50: 0	MAP	66.36	3	IR1=DV,IR2=DH
34.92	-92.15	7/21/76	17: 5: 0	MAP	68.86	3	IR1=DV,IR2=SH
34.92	-92.15	7/21/76	17:20: 0	MAP	71.11	2	IR1=SVR,IR2=SH SUN OBS?
34.92	-92.15	7/21/76	17:35: 0	MAP	73.02	3	IR1=SVR,IR2=DH,A4=2C,B4=1C
34.92	-92.15	7/21/76	17:50: 0	MAP	74.45	3	IR1=DH,IR2=SH,A4=2C,B3=1C
33.95	-83.32	8/ 4/76	11:45: 0	MAP	10.62	3	IR1=DH,IR2=SH
33.95	-83.32	8/ 4/76	12: 0: 0	MAP	13.65	3	IR1=DV,IR2=DH
33.95	-83.32	8/ 4/76	12:15: 0	MAP	16.71	3	IR1=DV,IR2=SH
33.95	-83.32	8/ 4/76	12:30: 0	MAP	19.78	3	IR1=SVR,IR2=SH
33.95	-83.32	8/ 4/76	12:45: 0	MAP	22.87	3	IR1=SVR,IR2=DH
33.95	-83.32	8/ 4/76	13: 0: 0	MAP	25.96	3	IR1=DH,IR2=SH
33.95	-83.32	8/ 4/76	13:15: 0	MAP	29.07	3	IR1=DV,IR2=DH,A1=3C,A2=1C,A3=1C,A4=1C
33.95	-83.32	8/ 4/76	13:30: 0	MAP	32.18	0	IR1=DV,IR2=SH,A1=2C,A2=2C,A3=1C,A4=2C SUN OPS
33.95	-83.32	8/ 4/76	13:45: 0	MAP	35.29	1	IR1=SVR,IR2=SH,A1=8C,A2=5C,A3=6C,A4=5C,B1=3C,B2=1C SUN O

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
33.95	-83.32	8/ 4/76	14: 0: 0	MAP	38.39	1	IR1=SVP,IR2=DH,A1=2C,A2=1C,A3=1C,A4=2C
33.95	-83.32	8/ 4/76	14:15: 0	MAP	41.48	2	IR1=DH,IR2=SH,A1=1C,A2=1C,A3=1C,A4=1C,B3=1C,B4=2C
33.95	-83.32	8/ 4/76	14:30: 0	MAP	44.56	2	IR1=DV,IR2=DH,A1=1C,A2=1C,A3=1C,A4=1C,B3=1C,B4=2C
33.95	-83.32	8/ 4/76	14:47:10	MAP	48.05	2	IR1=DH,IP2=SH,A1=1C,A2=2C,A3=1C,A4=1C,B1=1C,B2=1C,B3=1C,B4
33.95	-83.32	8/ 6/76	11:45: 0	MAP	10.32	3	IR1=DH,IR2=SH,A1=1S-2R,A2=2S,A3=3S,
33.95	-83.32	8/ 6/76	12: 0: 0	MAP	13.36	2	IR1=DV,IR2=DH,A1=8S,A2=9S,A3=9S,A4=9S,B1=9S,B4=9S,C=9S
33.95	-83.32	8/ 6/76	13: 0: 0	MAP	25.69	3	IR1=DH,IR2=SH,A2=3R,A3=2R,A4=4R,C=1R
33.95	-83.32	8/ 6/76	13:15: 0	MAP	28.80	3	IR1=DV,IR2=DH,A1=2C
33.95	-83.32	8/ 6/76	13:30: 0	MAP	31.91	3	IR1=DV,IR2=SH,A1=2C
33.95	-83.32	8/ 6/76	13:45: 0	MAP	35.01	3	IR1=SVB,IR2=SH
33.95	-83.32	8/ 6/76	14: 0: 2	MAP	38.12	3	IR1=SVB,IR2=DH,A2=1C,B1=1C
33.95	-83.32	8/ 6/76	14:15: 0	MAP	41.20	3	IR1=DH,IR2=SH,B1=1C
33.95	-83.32	8/ 6/76	14:30: 0	MAP	44.27	3	IR1=DV,IR2=DH,A1=1C
33.95	-83.32	8/ 6/76	14:45: 0	MAP	47.32	3	IR1=DV,IR2=SH,A1=1R,A3=1R,B4=1R
33.95	-83.32	8/ 6/76	15: 0: 0	MAP	50.33	3	IR1=SVB,IR2=SH,A1=2R,B1=2R,B2=3R,B3=3R,B4=1R
33.95	-83.32	8/ 6/76	15:15: 0	MAP	53.30	0	IR1=SVP,IR2=DH,A1=6R,A2=1C,A3=6R,A4=3C,B1=2R,B2=8R,B3=9R,B
33.95	-82.68	8/10/76	14:35: 0	MAP	45.39	3	IR1=DV,IR2=DH
33.95	-82.68	8/10/76	14:50: 0	MAP	48.40	3	IR1=DV,IR2=SH
33.95	-82.68	8/10/76	15: 5: 0	MAP	51.36	3	IR1=SVB,IR2=SH
33.95	-82.68	8/10/76	15:20: 0	MAP	54.27	3	IR1=SVB,IR2=DH
33.95	-82.68	8/10/76	15:35: 0	MAP	57.09	3	IR1=DH,IR2=SH
33.95	-82.68	8/10/76	15:50: 0	MAP	59.80	3	IR1=DV,IR2=DH
33.95	-82.68	8/10/76	16: 5: 0	MAP	62.38	3	IR1=DV,IR2=SH
33.95	-82.68	8/10/76	16:20: 0	MAP	64.77	3	IR1=SVB,IR2=SH
33.95	-82.68	8/10/76	16:35: 0	MAP	66.92	3	IR1=SVB,IR2=DH, SHADOW BOARD OFF SLIGHTLY
33.95	-82.68	8/10/76	16:50: 0	MAP	69.74	3	IR1=DH,IR2=SH,A1=1C,A4=1C
33.95	-82.68	8/10/76	17: 5: 0	MAP	70.16	3	IR1=DV,IR2=DH,A1=2C,A2=1C,A3=1C,A4=1C,B3=2C,B4=1C CLOUD
33.95	-83.32	8/11/76	11: 5: 0	MAP	1.72	3	IR1=DH,IR2=SH
33.95	-83.32	8/11/76	11:20: 0	MAP	4.71	3	IR1=DH,IR2=SH
33.95	-83.32	8/11/76	11:35: 0	MAP	7.72	3	IR1=DH,IR2=SH IR1 DATA N.G.

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
33.95	-83.32	8/11/76	11:50: 0	MAP	10.76	3	IR1=DV,IR2=SH
33.95	-83.32	8/11/76	12: 5:32	MAP	13.93	3	IR1=SVB,IR2=SH
33.95	-83.32	8/11/76	12:20: 0	MAP	16.90	3	IR1=SVB,IR2=DH
33.95	-83.32	8/11/76	12:35: 0	MAP	19.99	3	IR1=DH,IR2=SH
33.95	-83.32	8/11/76	12:50: 0	MAP	23.09	3	IR1=DV,IR2=DH
33.95	-83.32	8/11/76	13: 5: 0	MAP	26.20	3	IR1=DV,IR2=SH
33.95	-83.32	8/11/76	13:20: 0	MAP	29.31	3	IR1=SVB,IR2=SH
33.95	-83.32	8/11/76	13:35: 0	MAP	32.42	3	IR1=SVB,IR2=DH
33.95	-83.32	8/11/76	13:46: 0	MAP	34.69	3	IR1=DH,IR2=SH, START EARLY, ANGLESSLIGHTLY WRONG
33.95	-83.32	8/11/76	14: 5: 0	MAP	38.60	3	IR1=DV,IR2=DH
33.95	-83.32	8/11/76	14:20: 0	MAP	41.67	3	IR1=DV,IR2=SH
33.95	-83.32	8/11/76	14:35: 0	MAP	44.72	3	IR1=SVB,IR2=SH
33.95	-83.32	8/11/76	14:50: 0	MAP	47.73	3	IR1=SVB,IR2=DH
33.95	-83.32	8/11/76	15: 5: 0	MAP	50.69	3	IR1=DH,IR2=SH
33.95	-83.32	8/11/76	15:20: 0	MAP	53.60	3	IR1=DV,IR2=DH
33.95	-83.32	8/11/76	15:35: 0	MAP	56.63	3	IR1=DV,IR2=SH,A2=1C,A3=1C,A4=2C,B1=1C, POSSIBLE CLOUD IN S
33.95	-83.32	8/11/76	15:50: 0	MAP	59.15	3	IR1=SVB,IR2=SH
33.95	-83.32	8/12/76	11: 5: 0	MAP	1.55	1	IR2=DV SUN OBS CLOUDS
33.95	-83.32	8/12/76	11:20: 0	MAP	4.54	1	IR2=SVB,A1=8C,A4=8C,B1=2C,B4=2C SUN OPS CLOUDS
33.95	-83.32	8/12/76	12: 5: 0	MAP	13.66	3	IR2=SVB
33.95	-83.32	8/12/76	12:20: 0	MAP	16.74	3	IR2=SVB
33.95	-83.32	8/12/76	12:35: 0	MAP	19.84	3	IR2=SVB
33.95	-83.32	8/12/76	12:50: 0	MAP	22.94	3	IR2=DH
33.95	-83.32	8/12/76	13: 5: 0	MAP	26.05	3	IR2=SVB
33.95	-83.32	8/12/76	13:20: 0	MAP	29.15	3	IR2=SVB
33.95	-83.32	8/12/76	13:35: 0	MAP	32.26	1	IR2=SVB,A1=5C,A2=3C,A4=5C,B1=3C,B2=3C,B3=1C,B4=3C SUN O
33.95	-83.32	8/12/76	13:50: 0	MAP	35.36	1	IR2=SVB,A1=8C,A2=8C,A3=4C,A4=3C,B1=5C,B2=5C,B3=2C,B4=2C
33.95	-83.32	8/13/76	11: 7: 0	MAP	1.77	3	IR1=DH,IR2=SH IR1(350)=5.18-8 IR2(350)=10.41-8
33.95	-83.32	8/13/76	11:20: 0	MAP	4.37	3	IR1=DH,IR2=SH
33.95	-83.32	8/13/76	11:35: 0	MAP	7.39	3	IR1=DV,IR2=DH

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
33.95	-83.32	8/13/76	12:20: 0	MAP	16.58	3	IR1=SVR,IR2=DH
33.95	-83.32	8/13/76	12:35: 0	MAP	19.68	3	IR1=DH,IR2=SH
33.95	-83.32	8/13/76	12:50: 0	MAP	22.78	3	IR1=DV,IR2=DH
33.95	-83.32	8/13/76	13: 5: 0	MAP	25.89	3	IR1=DV,IR2=SH
33.95	-83.32	8/13/76	13:20: 0	MAP	29.00	3	IR1=SVR,IR2=SH
33.95	-83.32	8/13/76	13:35: 0	MAP	32.10	3	IR1=SVB,IR2=DH
33.95	-83.32	8/13/76	13:50: 0	MAP	35.20	3	IR1=DH,IR2=SH
33.95	-83.32	8/13/76	14: 5:49	MAP	38.45	3	IR1=DV,IR2=DH
33.95	-83.32	8/13/76	14:20: 0	MAP	41.35	3	IR1=DV,IR2=SH
33.95	-83.32	8/13/76	14:35: 0	MAP	44.38	3	IR1=SVB,IR2=SH
33.95	-83.32	8/13/76	14:50: 0	MAP	47.39	3	IR1=SVR,IR2=DH
33.95	-83.32	8/13/76	15: 5: 0	MAP	50.34	3	IR1=DH,IR2=SH
33.95	-83.32	8/13/76	15:20: 0	MAP	53.23	3	IR1=DV,IR2=DH
33.95	-83.32	8/13/76	15:35: 0	MAP	56.04	3	IR1=DV,IR2=SH,A1=1C,A2=1C,A3=2C,A4=1C,B1=1C
33.95	-83.32	8/13/76	15:50: 0	MAP	58.74	2	IR1=SVB,IR2=SH,A1=3C,A2=2C,A3=3C,A4=5C,B1=4C,B2=2C,B3=1C,B
29.73	-85.03	8/22/76	12:30: 0	MAP	15.81	1	IR1=SVB,IR2=DH,POSS SUN OBS (CLDS)
29.73	-85.03	8/22/76	12:45: 0	MAP	19.06	2	IR1=DH,IR2=SH,A1=2R,A3=6R,A4=2R,THIN CIRRUS ACROSS SKY.
29.73	-85.03	8/22/76	13: 0: 0	MAP	22.32	2	IR1=DV,IR2=DH,A1=2R,A3=6R,A4=2R,THIN CIRRUS ACROSS SKY.
29.73	-85.03	8/22/76	13:15: 0	MAP	25.57	2	IR1=DV,IR2=SH,A1=2R,A4=2R,THIN CIRRUS ACROSS SKY.
29.73	-85.03	8/22/76	13:30: 0	MAP	28.82	2	IR1=SVB,IR2=SH,A1=3R,A2=2R,A3=2R,A4=3R,THIN CIRRUS ACROSS
29.73	-85.03	8/22/76	13:45: 0	MAP	32.07	2	IR1=SVR,IR2=DH,A1=2R,A2=1R,A4=2R,THIN CIRRUS ACROSS SKY.
29.73	-85.03	8/22/76	14: 0: 0	MAP	35.31	2	IR1=DH,IR2=SH,A1=2R,A2=1R,A4=2R,THIN CIRRUS ACROSS SKY.
29.73	-85.03	8/22/76	14:15: 0	MAP	38.53	2	IR1=DV,IR2=DH,A2=1C,A4=2R,THIN CIRRUS ACROSS SKY.
29.73	-85.03	8/22/76	14:30: 0	MAP	41.73	2	IR1=DV,IR2=SH,A2=1C,A4=2R,THIN CIRRUS ACROSS SKY.
29.73	-85.03	8/22/76	14:45: 0	MAP	44.90	2	IR1=SVB,IR2=SH,A4=2R,THIN CIRRUS ACROSS SKY,POSS SUN OBS.
29.73	-85.03	8/22/76	15: 0: 0	MAP	48.04	2	IR1=SVB,IR2=DH,THIN CIRRUS ACROSS SKY.
29.73	-85.03	8/22/76	15:15: 0	MAP	51.13	3	IR1=DH,IR2=SH,A1=1C,A2=1C,A3=1C,A4=1C,CIRRUS APEARS TO HAV
29.73	-85.03	8/22/76	15:30: 0	MAP	54.15	3	IR1=DV,IR2=DH,A1=1C,A2=1C,A3=1C,A4=1C,B1=1C, CUMUL-PUFFY
29.73	-85.03	8/22/76	15:45: 0	MAP	57.10	2	IR1=DV,IR2=SH,A1=2C,A2=3C,A3=2C,A4=1C,B2=1C
29.73	-85.03	8/22/76	21:16:31	MAP	37.35	3	IR1=DH,IR2=SVR,A2=1C,A3=1C

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
29.73	-85.03	8/22/76	21:30: 0	MAP	34.45	3	IR1=SH,IR2=DH,A2=1C,A3=1C
29.73	-85.03	8/22/76	21:45: 0	MAP	31.21	3	IR1=DH,IR2=DV,A2=1C,A3=1C
29.73	-85.03	8/22/76	22: 0: 0	MAP	27.96	3	IR1=SH,IR2=DV,A2=1C,A3=1C
29.73	-85.03	8/22/76	22:15: 0	MAP	24.70	3	IR1=SH,IR2=SVB,A3=1R,A4=1R
29.73	-85.03	8/22/76	22:30: 0	MAP	21.44	3	IR1=DH,IR2=SVB,A3=2R,A4=2R
29.73	-85.03	8/22/76	22:45: 0	MAP	18.19	3	IR1=SH,IR2=DH,A3=2R,A4=2R
29.73	-85.03	8/22/76	23: 0: 0	MAP	14.94	3	IR1=DH,IR2=DV,A3=2R,A4=2R
29.73	-85.03	8/22/76	23:15: 0	MAP	11.70	3	IR1=SH,IR2=DV,A3=2R,A4=2R
29.73	-85.03	8/22/76	23:30: 0	MAP	8.47	2	IR1=DH,IR2=DV,A3=2R,A4=2R
29.73	-85.03	8/22/76	23:45: 0	MAP	5.25	2	IR1=SH,IR2=DV,SUN ORS CIRRUS, CIRRUS SCATTERED ACROSS SKY.
29.73	-85.03	8/23/76	12:45: 0	MAP	18.90	3	IR1=DH,IR2=SH
29.73	-85.03	8/23/76	13: 0: 0	MAP	22.16	3	IR1=DV,IR2=DH
29.73	-85.03	8/23/76	13:15: 0	MAP	25.41	3	IR1=DV,IR2=SH
29.73	-85.03	8/23/76	13:30: 0	MAP	28.66	3	IR1=SVB,IR2=SH
29.73	-85.03	8/23/76	13:45: 0	MAP	31.91	3	IR1=SVB,IR2=DH
29.73	-85.03	8/23/76	14: 0: 0	MAP	35.14	3	IR1=DH,IR2=SH
29.73	-85.03	8/23/76	14:15: 0	MAP	38.36	3	IR1=DV,IR2=DH
29.73	-85.03	8/23/76	14:30: 0	MAP	41.56	3	IR1=DV,IR2=SH
29.73	-85.03	8/23/76	14:45: 0	MAP	44.73	3	IR1=SVB,IR2=SH
29.73	-85.03	8/23/76	15: 0: 0	MAP	47.86	3	IR1=SVB,IR2=DH
29.73	-85.03	8/23/76	15:15: 0	MAP	50.94	3	IR1=DH,IR2=SH
29.73	-85.03	8/23/76	15:30: 0	MAP	53.96	3	IR1=DV,IR2=DH
29.73	-85.03	8/23/76	15:45: 0	MAP	56.89	3	IR1=DV,IR2=SH
29.73	-85.03	8/23/76	16:15: 0	MAP	62.38	3	IR1=SVB,IR2=DH
29.73	-85.03	8/23/76	16:30: 0	MAP	64.85	3	IR1=DH,IR2=SH,A2=1C
29.73	-85.03	8/23/76	16:45: 0	MAP	67.06	3	IR1=DV,IR2=DH,A1=1C,A2=1C
29.73	-85.03	8/23/76	17: 0: 0	MAP	68.92	3	IR1=DV,IR2=SH,A1=2C,A2=3C,A4=2C
29.73	-85.03	8/23/76	17:15: 0	MAP	70.34	3	IR1=SVB,IR2=SH,A1=5C,A2=7C,A4=4C
35.03	-106.95	9/12/76	13:30: 0	MAP	7.43	0	IR1=DV,IR2=DH,A1=4R,1S,A2=2R,2S,A3=1R,A4=3R, CIRRUS
35.03	-106.95	9/12/76	13:45: 0	MAP	10.49	0	IR1=DV,IR2=SH,A1=2P,1S,A2=2R,2S,A3=1R,A4=2R, CIRRUS

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
35.03	-106.95	9/12/76	14: 0: 0	MAP	13.55	0	IR1=SVR,IR2=SH,A1=3R,1S,A2=1S,1P,A4=3R, CIRRUS
35.03	-106.95	9/12/76	14:15: 0	MAP	16.61	0	IR1=SVR,IR2=DH,A1=3R,1S,A2=1R,1S,A4=3R, CIRRUS
35.03	-106.95	9/12/76	14:30: 0	MAP	19.64	0	IR1=DH,IR2=SH,A1=4P,A2=1R,A4=3R, CIRRUS
35.03	-106.95	9/12/76	14:45: 0	MAP	22.66	3	IR1=DV,IR2=DH,A1=4P,A2=1R,A4=2R, CIRRUS NO LONGER OVER S
35.03	-106.95	9/12/76	15: 0: 0	MAP	25.65	3	IR1=DV,IR2=SH,A1=1R,A4=1P
35.03	-106.95	9/12/76	15:15: 0	MAP	28.61	3	IR1=SVB,IR2=SH,A1=1R,A4=1R
35.03	-106.95	9/12/76	15:30: 0	MAP	31.53	3	IR1=SVR,IR2=DH,A1=1R,A4=1R
35.03	-106.95	9/12/76	15:45: 0	MAP	34.39	3	IR1=DH,IR2=SH,A1=1R,A4=1R
35.03	-106.95	9/12/76	16: 0: 0	MAP	37.20	3	IR1=DV,IR2=DH,A1=5R,A3=2C,A4=1C,1R
35.03	-106.95	9/12/76	16:15: 0	MAP	39.94	3	IR1=DV,IR2=SH,A1=5R,A3=2C,A4=1R,1C,B3=1C, CLOUDS ARE FOR
35.03	-106.95	9/12/76	16:30: 0	MAP	42.58	3	IR1=SVR,IR2=SH,A1=5R,A2=2C,A3=2C,A4=5R,B1=4C,P3=1C
35.03	-106.95	9/12/76	16:45: 0	MAP	45.13	3	IR1=SVR,IR2=DH,A1=6R,A2=4C,A4=2R,B2=2C,B4=1R
35.03	-106.95	9/12/76	17: 0: 0	MAP	47.54	0	IR1=DH,IR2=SH,A1=6R,A2=4C,A3=4C,A4=2R,B2=2C,B4=1R, CIRRUS
35.03	-106.95	9/12/76	17:15: 0	MAP	49.81	1	IR1=DV,IR2=DH,A1=3R,A2=6C,A3=5C,A4=3R,B1=3R,B4=3R,C=1R,
35.03	-106.95	9/13/76	13: 1:20	MAP	1.55	3	IR1=DH,IR2=SH
35.03	-106.95	9/13/76	13:15: 0	MAP	4.34	3	IR1=DH,IR2=SH
35.03	-106.95	9/13/76	13:30: 0	MAP	7.41	3	IR1=DV,IR2=DH
35.03	-106.95	9/13/76	13:45: 0	MAP	10.48	3	IR1=DV,IR2=SH
35.03	-106.95	9/13/76	14: 0: 0	MAP	13.54	3	IR1=SVR,IR2=SH, MOBILE PHONE IN USE DURING MAP
35.03	-106.95	9/13/76	14:15: 0	MAP	16.59	3	IR1=SVB,IR2=DH
35.03	-106.95	9/13/76	14:30: 0	MAP	19.62	3	IR1=DH,IR2=SH
35.03	-106.95	9/13/76	14:45: 0	MAP	22.63	3	IR1=DV,IR2=DH
35.03	-106.95	9/13/76	15: 0: 0	MAP	25.62	3	IR1=DV,IR2=SH
35.03	-106.95	9/13/76	15:15: 0	MAP	28.57	3	IR1=SVR,IR2=SH
35.03	-106.95	9/13/76	15:30: 0	MAP	31.48	3	IR1=SVR,IR2=DH
35.03	-106.95	9/13/76	15:45: 0	MAP	34.33	3	IR1=DH,IR2=SH
35.03	-106.95	9/13/76	16: 0: 0	MAP	37.13	3	IR1=DV,IR2=DH
35.03	-106.95	9/13/76	16:15: 0	MAP	39.85	3	IR1=DV,IR2=SH
35.03	-106.95	9/13/76	16:30: 0	MAP	42.48	3	IR1=SVB,IR2=SH
35.03	-106.95	9/13/76	16:45: 0	MAP	45.00	3	IR1=SVR,IR2=DH

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
35.03	-106.95	9/13/76	17: 0: 0	MAP	47.40	3	IR1=DH,IR2=SH
35.03	-106.95	9/13/76	17:15: 0	MAP	49.65	3	IR1=DV,IR2=DH
35.03	-106.95	9/13/76	17:30: 0	MAP	51.71	3	IR1=DV,IR2=SH,A3=1R,A4=1C, SCATTERED CLOUDS ARE FORMING
35.03	-106.95	9/13/76	17:45: 0	MAP	53.56	3	IR1=SVR,IR2=SH,A3=1R,A4=1C
35.03	-106.95	9/13/76	18: 0: 0	MAP	55.17	3	IR1=SVR,IR2=DH,A4=1C,B4=1C
35.03	-106.95	9/13/76	18:15: 0	MAP	56.49	3	IR1=DH,IR2=SH,A4=1C,B2=1C,B3=1C
35.03	-106.95	9/13/76	18:30: 0	MAP	57.50	1	IR1=DV,IR2=DH,A2=1C,A3=1C,A4=1C,B2=2C,B3=1C,B4=2C
35.03	-106.95	9/13/76	18:45: 0	MAP	58.15	1	IR1=DV,IR2=SH,A2=1C,A3=1C,A4=2C,B2=2C,B3=1C,B4=2C
35.03	-106.95	9/13/76	19: 0: 0	MAP	58.44	1	IR1=SVR,IR2=SH,A1=2C,A2=2C,A3=2C,A4=2C
35.05	-106.57	9/14/76	13:15: 0	MAP	4.44		
35.05	-106.57	9/14/76	13:30: 0	MAP	7.50		
35.05	-106.57	9/14/76	13:45: 0	MAP	10.57		
35.05	-106.57	9/14/76	14: 0: 0	MAP	13.63		
35.05	-106.57	9/14/76	14:15: 0	MAP	16.67	3	IR1=SVB,IR2=DH,A3=1R,B2=1R
35.05	-106.57	9/14/76	14:30: 0	MAP	19.70	3	IR1=DH,IR2=SH,A3=1R,B2=1R
35.05	-106.57	9/14/76	14:45: 0	MAP	22.71	3	IR1=DV,IR2=DH
35.05	-106.57	9/14/76	15: 0: 0	MAP	25.68	3	IR1=DV,IR2=SH
35.05	-106.57	9/14/76	15:15: 0	MAP	28.62	3	IR1=SVR,IR2=SH
35.05	-106.57	9/14/76	15:30: 0	MAP	31.52	3	IR1=SVR,IR2=DH
35.05	-106.57	9/14/76	15:45: 0	MAP	34.36	3	IR1=DH,IR2=SH,A1=1R,A2=2R,A3=2R,A4=2R
35.05	-106.57	9/14/76	16: 0: 0	MAP	37.14	3	IR1=DV,IR2=DH
35.05	-106.57	9/14/76	16:15: 0	MAP	39.84	3	IR1=DV,IR2=SH
35.05	-106.57	9/14/76	16:30: 0	MAP	42.45	3	IR1=SVR,IR2=SH,A1=1C,8R,A2=8R,A3=9R,A4=9R
35.05	-106.57	9/14/76	16:45: 0	MAP	44.95	3	IR1=SVB,IR2=DH,A1=1C,8R,A2=8R,A3=9R,A4=9R
35.05	-106.57	9/14/76	17: 0: 0	MAP	47.32	3	IR1=DH,IR2=SH,A1=1C,8R,A2=8R,A3=9R,A4=9R
35.03	-106.57	9/19/76	13:22: 2	MAP	5.17	1	IR1=DH,IR2=SH,A1=3C,A2=1C,A3=7C,A4=1C,B2=2C,B3=5C POSS.
35.03	-106.57	9/19/76	13:35: 0	MAP	7.82	1	IR1=DV,IR2=DH,A1=3C,A2=1C,A3=6C,A4=1C,B2=1C,B3=3C POSS.
35.03	-106.57	9/19/76	13:50: 0	MAP	10.88	1	IR1=DV,IR2=SH,A1=4C,A3=3C,A4=2C POSS. SUN OBS.
35.03	-106.57	9/19/76	14: 5: 0	MAP	13.92	3	IR1=SVR,IR2=SH,A1=4C,A3=2C,A4=2C
35.03	-106.57	9/19/76	14:20: 0	MAP	16.95	3	IR1=SVR,IR2=DH,A1=3C,A3=2C,A4=1C

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
35.03	-106.57	9/19/76	14:35: 0	MAP	19.95	3	IR1=DM,IR2=SM,A1=3C,A3=1C,A4=2C
35.03	-106.57	9/19/76	14:50: 0	MAP	22.92	3	IR1=DV,IR2=DM,A1=2C,A4=2C
35.03	-106.57	9/19/76	15: 5: 0	MAP	25.86	3	IR1=DV,IR2=SM,A1=1C,A3=1C,A4=2C
35.03	-106.57	9/19/76	15:35: 0	MAP	31.59	3	IR1=SVB,IR2=DM,A1=1C,A3=1C,A4=1C
35.03	-106.57	9/19/76	15:50: 0	MAP	34.37	3	IR1=DM,IR2=SM,A1=1C,A3=1C,A4=1C
35.03	-106.57	9/19/76	16: 5: 0	MAP	37.07	3	IR1=DV,IR2=DM,A1=1C,A2=1S,A3=1C,A4=1C
35.03	-106.57	9/19/76	16:21: 0	MAP	39.86	3	IR1=DV,IR2=SM,A1=1C,A2=1S,A3=1C,A4=1C
35.03	-106.57	9/19/76	16:35: 0	MAP	42.19	3	IR1=SVB,IR2=SM,A1=1C,A2=1S,A3=1C,A4=1C
35.03	-106.57	9/19/76	16:50: 0	MAP	44.58	3	IR1=SVB,IR2=DM,A1=1C,A2=1S,A3=1C,A4=1C
35.03	-106.57	9/19/76	17: 5: 0	MAP	46.82	3	IR1=DM,IR2=SM,A1=1C,A2=1S,A3=1C,A4=1C,1S
35.03	-106.57	9/19/76	17:20: 0	MAP	48.89	3	IR1=DV,IR2=DM,A2=1S,A3=1C,A4=1C
35.03	-106.57	9/19/76	17:35: 0	MAP	50.76	3	IR1=DV,IR2=SM,A2=1C,A3=1C,A4=1C
35.03	-106.57	9/19/76	17:50: 0	MAP	52.40	3	IR1=SVB,IR2=SM,A1=1C,A4=3C
35.03	-106.57	9/19/76	18: 5: 0	MAP	53.78	3	IR1=SVB,IR2=DM,A1=1C,A2=1C,A3=1C,A4=5C
35.03	-106.57	9/19/76	18:20: 0	MAP	54.86	3	IR1=DM,IR2=SM,A1=1C,A2=1C,A3=1C,A4=9C
35.03	-106.57	9/19/76	18:35: 0	MAP	55.63	3	IR1=DV,IR2=DM,A1=1C,A2=1C,A3=1C,A4=9C
35.03	-106.57	9/19/76	18:50: 0	MAP	56.05	3	IR1=DV,IR2=SM,A1=1C,A2=1C,A3=1C,A4=9C
35.03	-106.57	9/19/76	19: 5: 0	MAP	56.11	3	IR1=SVB,IR2=SM,A1=1C,A2=2C,2R,A3=7C,A4=5C
35.03	-106.57	9/19/76	19:20: 0	MAP	55.81	3	IR1=SVB,IR2=DM,A1=2C,A2=1C,A3=8C,A4=8C,B3=2C,B4=2C,C=1C
41.12	-111.97	9/27/76	16: 7: 6	MAP	28.84	3	IR1=SVB,IR2=DM,A1=3P,3C,A3=1S,1R,A4=1R,1S
41.12	-111.97	9/27/76	16:21:21	MAP	31.07	3	IR1=DM,IR2=SM,A1=1R,3C,A3=2R,A4=1R,1S,B4=2R
41.12	-111.97	9/27/76	16:35: 0	MAP	33.12	3	IR1=DV,IR2=DM,A1=1R,2C,A3=3S,A4=1R,2S,B4=3P
41.12	-111.97	9/27/76	16:50: 0	MAP	35.27	3	IR1=DV,IR2=SM,A1=1R,3C,A3=1R,A4=1R,1S,B4=2R
41.12	-111.97	9/27/76	17: 5: 0	MAP	37.30	3	IR1=SVB,IR2=SM,A1=3C,A3=2R,A4=1S,2R,B4=1R
41.12	-111.97	9/27/76	17:20: 0	MAP	39.18	3	IR1=SVB,IR2=DM,A1=3C,A4=1R,4S,B1=2R,B4=1R
41.12	-111.97	9/27/76	17:35: 0	MAP	40.89	0	IR1=DM,IR2=SM,A1=1R,2C,A3=1S,A4=1R,3S, SUN ORS - CLOUDS
41.12	-111.97	9/27/76	17:50: 0	MAP	42.43	3	IR1=DV,IR2=DM,A1=1S,1C,A3=1S,A4=2S,B4=1R
41.12	-111.97	9/27/76	18: 5: 0	MAP	43.77	3	IR1=DV,IR2=SM,A1=1S,1C,A3=2S,A4=1R,1S,2C
41.12	-111.97	9/27/76	18:20: 0	MAP	44.90	3	IR1=SVB,IR2=SM,A1=1S,1C,A3=3S,1C,A4=1R,2S,2C
41.12	-111.97	9/27/76	18:35: 0	MAP	45.78	3	IR1=SVB,IR2=DM,A1=1C,A3=3S,1C,A4=1P,2S,2C

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
41.12	-111.97	9/27/76	18:50: 0	MAP	46.42	3	IR1=DH,IR2=SH,A1=1C,A3=3S,1C,A4=1R,2C, NO READINGS AT
41.12	-111.97	9/27/76	19: 5: 0	MAP	46.80	2	IR1=DV,IR2=DH,A1=1R,2C,A3=3S,2C,A4=1R,3S,3C,C=1R
41.12	-111.97	9/27/76	19:20: 0	MAP	46.91	3	IR1=DV,IR2=SH,A1=1R,A2=4R,A3=3S,5R,A4=2S,RR,B1=1R,B3=6R,B4
41.12	-111.97	9/28/76	13:36: 2	MAP	1.74	3	IR1=DH,IR2=SH, SUN OBS - MOUNTAIN
41.12	-111.97	9/28/76	13:50:17	MAP	4.41	3	IR1=DH,IR2=SH, SUN OBS - MOUNTAIN
41.12	-111.97	9/28/76	14: 5: 0	MAP	7.15	3	IR1=DV,IR2=DH
41.12	-111.97	9/28/76	14:20: 0	MAP	9.92	3	IR1=DV,IR2=SH
41.12	-111.97	9/28/76	14:35: 0	MAP	12.67	3	IR1=SVB,IR2=SH
41.12	-111.97	9/28/76	14:50: 0	MAP	15.38	3	IR1=SVB,IR2=DH
41.12	-111.97	9/28/76	15: 5: 0	MAP	18.06	3	IR1=DH,IR2=SH
41.12	-111.97	9/28/76	15:20: 0	MAP	20.69	3	IR1=DV,IR2=DH
41.12	-111.97	9/28/76	15:35: 0	MAP	23.26	3	IR1=DV,IR2=SH
41.12	-111.97	9/28/76	15:50: 0	MAP	25.77	3	IR1=SVB,IR2=SH
41.12	-111.97	9/28/76	16: 5: 0	MAP	28.21	3	IR1=SVB,IR2=DH
41.12	-111.97	9/28/76	16:20: 0	MAP	30.56	3	IR1=DH,IR2=SH
41.12	-111.97	9/28/76	16:35: 0	MAP	32.81	3	IR1=DV,IR2=DH
41.12	-111.97	9/28/76	16:50: 0	MAP	34.95	3	IR1=DV,IR2=SH
41.12	-111.97	9/28/76	17: 5: 0	MAP	36.96	3	IR1=SVB,IR2=SH
41.12	-111.97	9/28/76	17:20: 0	MAP	38.83	3	IR1=SVB,IR2=DH
41.12	-111.97	9/28/76	17:35: 0	MAP	40.54	3	IR1=DH,IR2=SH
41.12	-111.97	9/28/76	17:50: 0	MAP	42.07	0	IR1=DV,IR2=DH, SKY DATA NO GOOD FOR 450,650 DUE TO TEL
41.12	-111.97	9/28/76	18: 5: 0	MAP	43.40	3	IR1=DV,IR2=SH
41.12	-111.97	9/28/76	18:20: 0	MAP	44.52	3	IR1=SVB,IR2=SH
41.12	-111.97	9/28/76	18:35: 0	MAP	45.40	3	IR1=SVB,IR2=DH
41.12	-111.97	9/28/76	18:50: 0	MAP	46.04	3	IR1=DH,IR2=SH
41.12	-111.97	9/28/76	19: 5: 0	MAP	46.41	3	IR1=DV,IR2=DH
41.12	-111.97	9/28/76	19:20: 0	MAP	46.52	3	IR1=DV,IR2=SH
41.12	-111.97	9/28/76	19:35: 0	MAP	46.36	3	IR1=SVB,IR2=SH
41.12	-111.97	9/28/76	19:50: 0	MAP	45.94	3	IR1=SVB,IR2=DH
41.12	-111.97	9/28/76	20: 5: 0	MAP	45.26	3	IR1=DH,IR2=SH, WEATHER TOWER DOWN

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
41.12	-111.97	9/28/76	20:17:21	MAP	44.51	3	IR1=DV,IR2=DH, NOT NORMALIZED - PROBABLY OK
41.12	-111.97	9/28/76	20:35: 0	MAP	43.18	3	IR1=DV,IR2=SH
41.12	-111.97	9/28/76	20:50: 0	MAP	41.91	3	IR1=SVB,IR2=SH
41.12	-111.97	9/28/76	21: 6: 5	MAP	40.12	3	IR1=DH,IR2=SVB
41.12	-111.97	9/28/76	21:20: 0	MAP	38.50	3	IR1=SH,IR2=DH
41.12	-111.97	9/28/76	21:35: 0	MAP	36.60	3	IR1=DH,IR2=DV
41.12	-111.97	9/28/76	21:50: 0	MAP	34.57	3	IR1=SH,IR2=DV
41.12	-111.97	9/28/76	22: 5: 0	MAP	32.40	3	IR1=SH,IR2=SVB
41.12	-111.97	9/28/76	22:20: 0	MAP	30.13	3	IR1=DH,IR2=SVB
41.12	-111.97	9/28/76	22:35: 0	MAP	27.76	3	IR1=SH,IR2=NONE, NO IR2
41.12	-111.97	9/28/76	22:50: 0	MAP	25.31	3	IR1=DH,IR2=DV
41.12	-111.97	9/28/76	23: 5: 0	MAP	22.79	3	IR1=SH,IR2=DV
41.12	-111.97	9/28/76	23:20: 0	MAP	20.20	3	IR1=SH,IR2=SVB
41.12	-111.97	9/28/76	23:35: 0	MAP	17.56	3	IR1=DH,IR2=SVB
41.12	-111.97	9/28/76	23:50: 0	MAP	14.87	3	IR1=SH,IR2=DH
41.12	-111.97	9/29/76	0: 5: 0	MAP	12.14	3	IR1=DH,IR2=DV
41.12	-111.97	9/29/76	0:25: 0	MAP	8.46	3	IR1=DH,IR2=DV
41.12	-111.97	9/29/76	0:40: 0	MAP	5.68	3	IR1=SH,IR2=DV
41.12	-111.97	9/29/76	0:55: 0	MAP	2.87	3	IR1=SH,IR2=DH
41.12	-111.97	9/29/76	1:10: 0	MAP	0.05	2	IR1=SH,IR2=DH, IR1 NO GOOD AT 450 AND PART OF 650 NM --
41.12	-111.97	9/29/76	13:35: 0	MAP	1.29	3	IR1=DV,IR2=SH
41.12	-111.97	9/29/76	13:50: 0	MAP	4.09	3	IR1=DV,IR2=SH, SHADOW NOT CENTERED ON IR2 AT 850 NM
41.12	-111.97	9/29/76	14: 5: 0	MAP	6.89	3	IR1=DV,IR2=DH
41.12	-111.97	9/29/76	14:20: 0	MAP	9.66	3	IR1=DV,IR2=SH
41.12	-111.97	9/29/76	14:35: 0	MAP	12.40	3	IR1=SVB,IR2=SH
41.12	-111.97	9/29/76	14:50: 0	MAP	15.11	3	IR1=SVB,IR2=DH
41.12	-111.97	9/29/76	15: 5: 0	MAP	17.78	3	IR1=DH,IR2=SH
41.12	-111.97	9/29/76	15:20: 0	MAP	20.41	3	IR1=DV,IR2=DH
41.12	-111.97	9/29/76	15:35: 0	MAP	22.98	3	IR1=DV,IR2=SH
41.12	-111.97	9/29/76	15:50: 0	MAP	25.48	3	IR1=SVB,IR2=SH

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
41.12	-111.97	9/29/76	16: 5: 0	MAP	27.91	3	IR1=SVP,IR2=DH
41.12	-111.97	9/29/76	16:20: 0	MAP	30.25	3	IR1=DH,IR2=SH
41.12	-111.97	9/29/76	16:35: 0	MAP	32.49	3	IR1=DV,IR2=DH
41.12	-111.97	9/29/76	16:50: 0	MAP	34.62	3	IR1=DV,IR2=SH
41.12	-111.97	9/29/76	17: 5: 0	MAP	36.63	3	IR1=SVP,IR2=SH
41.12	-111.97	9/29/76	17:20: 0	MAP	38.49	3	IR1=SVP,IR2=DH
41.12	-111.97	9/29/76	17:35: 0	MAP	40.19	3	IR1=DH,IR2=SH
41.12	-111.97	9/29/76	17:50: 0	MAP	41.71	2	IR1=DV,IR2=DH, SKY PAD DATA MAY NOT BE GOOD
41.12	-111.97	9/29/76	18: 5: 0	MAP	43.04	3	IR1=DV,IR2=SH
41.12	-111.97	9/29/76	18:20: 0	MAP	44.14	3	IR1=SVP,IR2=SH
41.12	-111.97	9/29/76	18:35: 0	MAP	45.02	3	IR1=SVB,IR2=DH
41.12	-111.97	9/29/76	18:50: 0	MAP	45.65	3	IR1=DH,IR2=SH
41.12	-111.97	9/29/76	19: 5: 0	MAP	46.02	3	IR1=DV,IR2=DH
41.12	-111.97	9/29/76	19:20: 0	MAP	46.13	3	IR1=DV,IR2=SH
41.12	-111.97	9/29/76	19:35: 0	MAP	45.97	3	IR1=SVP,IR2=SH
41.12	-111.97	9/29/76	19:50: 0	MAP	45.55	3	IR1=SVP,IR2=DH
41.12	-111.97	9/29/76	20: 5: 0	MAP	44.88	3	IR1=DH,IR2=SH,A1=1S,A4=1S
41.12	-111.97	9/29/76	20:20: 0	MAP	43.96	3	IR1=DV,IR2=DH,A1=1S,A4=1S, TOWER UP
41.12	-111.97	9/29/76	20:35: 0	MAP	42.91	3	IR1=DV,IR2=SH,A1=1S,A4=1S
41.12	-111.97	9/29/76	20:50: 0	MAP	41.45	3	IR1=SVP,IR2=SH,A1=1S,A4=1S
41.12	-111.97	9/29/76	21: 5: 0	MAP	39.89	3	IR1=SVP,IR2=DH,A1=1S,A4=1S
41.12	-111.97	9/29/76	21:20: 0	MAP	38.16	3	IR1=SH,IR2=DH,A1=1S,A4=1S
41.12	-111.97	9/29/76	21:35: 0	MAP	36.27	3	IR1=DH,IR2=DV,A1=1S,A4=1S
41.12	-111.97	9/29/76	21:50: 0	MAP	34.24	3	IR1=SH,IR2=DV,A1=1S,A4=2S
41.12	-111.97	9/29/76	22: 5: 0	MAP	32.09	3	IR1=SH,IR2=SVP,A1=1S,A4=2S
41.12	-111.97	9/29/76	22:20: 0	MAP	29.82	3	IR1=DH,IR2=SVP,A1=1S,A4=2S
41.12	-111.97	9/29/76	22:35: 0	MAP	27.46	3	IR1=SH,IR2=DH,A1=1S,A4=2S
41.12	-111.97	9/29/76	22:50: 0	MAP	25.02	3	IR1=DH,IR2=DV,A1=1S,A4=3S
41.12	-111.97	9/29/76	23: 5: 0	MAP	22.50	3	IR1=SH,IR2=DV,A1=2S,A4=3S
41.12	-111.97	9/29/76	23:20: 0	MAP	19.92	3	IR1=SH,IR2=SVP,A1=2S,A4=4S

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
39.78	-84.08	10/22/76	12: 5: 0	MAP	0.99	1	IR1=DH,IR2=SH,A3=1R,A4=1R
39.78	-84.08	10/22/76	12:20: 0	MAP	3.74	2	IR1=DH,IR2=SH,A3=1P,A4=1R,A1=1P,A2=1P
39.78	-84.08	10/22/76	12:35: 0	MAP	6.46	2	IR1=DV,IR2=DH,A1=1R,A2=1R,A3=1R,A4=1R LIGHT CIRRUS OVER
39.78	-84.08	10/22/76	12:50: 0	MAP	9.13	2	IR1=DV,IR2=SH,A1=2R,A2=1R,A3=1R,A4=1R
39.78	-84.08	10/22/76	13: 5: 0	MAP	11.75	2	IR1=SVB,IR2=SH,A1=3R,A2=2R,A3=2R,A4=3R
39.78	-84.08	10/22/76	13:20: 0	MAP	14.32	2	IR1=SVR,IR2=DH,A1=3R,A2=2R,A3=2R,A4=2P
39.78	-84.08	10/22/76	13:35: 0	MAP	16.81	2	IR1=DH,IR2=SH,A1=6R,A2=3R,A3=2R,A4=4R
39.78	-84.08	10/22/76	13:50: 0	MAP	19.24	2	IR1=DV,IR2=DH,A1=6R,A2=3R,A3=2R,A4=4R SUN OBS CIRRUS C
39.78	-84.08	10/22/76	14: 5: 0	MAP	21.57	2	IR1=DV,IR2=SH,A1=7R,A2=2R,A3=1R,A4=3R
39.78	-84.08	10/22/76	14:20: 0	MAP	23.82	2	IR1=SVB,IR2=SH,A1=6R,A2=3R,A3=1R,A4=5R
39.78	-84.08	10/22/76	14:35: 0	MAP	25.96	2	IR1=SVR,IR2=DH,A1=6R,A2=2R,A3=1R,A4=3R ONLY 450NM THIS
39.78	-84.08	10/22/76	14:50: 0	MAP	27.98	2	IR1=DH,IR2=SH,A1=9R,A2=2P,A3=2R,A4=4R
39.78	-84.08	10/22/76	15: 5: 0	MAP	29.87	2	IR1=DV,IR2=DH,A1=9R,A2=5R,A3=2R,A4=6R
39.78	-84.08	10/22/76	15:20: 0	MAP	31.62	2	IR1=DV,IR2=SH CIRRUS COVERING MOST OF SKY
39.78	-84.08	10/26/76	14:22:26	MAP	23.19	3	IR1=DV,IR2=SH HAZE ON THE HORIZON ALL AZIMUTHS
39.78	-84.08	10/26/76	14:36:40	MAP	25.17	3	IR1=SVB,IR2=SH,A4=1C HAZE ON THE HORIZON ALL AZIMUTHS
39.78	-84.08	10/26/76	14:50: 0	MAP	26.93	2	IR1=SVB,IR2=DH,A1=1R,A2=1R,A3=1R,A4=2R,B4=1S
39.78	-84.08	10/26/76	15: 5: 0	MAP	28.78	1	IR1=DH,IR2=SH,A1=1S,A2=2S,A3=2S,A4=1S,B3=2S,B4=3S,C=1R
39.78	-84.08	10/28/76	12:15: 0	MAP	1.64	2	IR1=DH,IR2=SH,A1=2R,A2=2R,A3=2R,A4=2R,B1=1R,B4=1R SMOG
39.78	-84.08	10/28/76	12:30: 0	MAP	4.34	2	IR1=DH,IR2=SH,A1=2R,A2=1R,A3=1R,A4=2R SMOG ON HORIZON
39.78	-84.08	10/28/76	12:45: 0	MAP	7.00	2	IR1=DV,IR2=DH,A1=1R,A2=1R,A3=1R,A4=1R SMOG ON HORIZON
39.78	-84.08	10/28/76	13: 0: 0	MAP	9.60	3	IR1=DV,IR2=SH,A1=1R,A2=1R SMOG ON HORIZON TRANSM. REAL
39.78	-84.08	10/28/76	13:15: 0	MAP	12.15	3	IR1=SVB,IR2=SH SMOG ON HORIZON - HAZY
39.78	-84.08	10/28/76	13:30: 0	MAP	14.62	3	IR1=SVB,IR2=DH SMOG ON HORIZON HAZY
39.78	-84.08	10/28/76	13:45: 0	MAP	17.03	3	IR1=DH,IR2=SH HEAVY SMOG IN A1 AND A2 MODERATE IN A3
39.78	-84.08	10/28/76	14: 0: 0	MAP	19.35	3	IR1=DV,IR2=DH HEAVY SMOG IN A1,A2,A3 MODERATE IN A4
39.78	-84.08	10/28/76	14:15: 0	MAP	21.58	3	IR1=DV,IR2=SH HEAVY SMOG IN A1,A2,A3 MODERATE SMOG IN
39.78	-84.08	10/28/76	14:30: 0	MAP	23.70	3	IR1=SVB,IR2=SH HEAVY SMOG IN A1,A2,A3 MODERATE SMOG IN
39.78	-84.08	10/28/76	14:45: 0	MAP	25.71	3	IR1=SVR,IR2=DH HEAVY SMOG IN A1,A2,A3 MODERATE SMOG IN
39.78	-84.08	10/28/76	15: 0: 0	MAP	27.59	3	IR1=DH,IR2=SH MODERATE SMOG IN A1,A2,A3 LIGHT SMOG IN

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
39.78	-84.08	10/28/76	15:15: 0	MAP	29.34	3	IR1=DV,IR2=DH LIGHT SMOG IN A1,A2,A3,A4
39.78	-84.08	10/28/76	15:30: 0	MAP	30.93	3	IR1=DV,IR2=SH LIGHT SMOG IN A1,A2,A3,A4
39.78	-84.08	10/28/76	15:45: 0	MAP	32.35	3	IR1=SVB,IR2=SH LIGHT SMOG IN A1,A2,A3,A4
39.78	-84.08	10/28/76	16: 0: 0	MAP	33.60	3	IR1=SVB,IR2=DH,A1=1S LIGHT SMOG IN A1,A2,A3,A4
39.78	-84.08	10/28/76	16:15: 0	MAP	34.65	3	IR1=DH,IR2=SH,A1=1S LIGHT SMOG IN A1,A2,A3,A4
39.78	-84.08	10/28/76	16:30: 0	MAP	35.50	3	IR1=DV,IR2=DH,A1=1S LIGHT SMOG IN A1,A2,A3,A4
39.78	-84.08	10/28/76	16:45: 0	MAP	36.14	3	IR1=DV,IR2=SH,A1=1S LIGHT SMOG
39.78	-84.08	10/28/76	17: 0: 0	MAP	36.56	3	IR1=SVB,IR2=SH LIGHT SMOG
39.78	-84.08	10/28/76	17:15: 0	MAP	36.75	3	IR1=SVB,IR2=DH LIGHT SMOG
39.78	-84.08	10/28/76	17:30: 0	MAP	36.72	3	IR1=DH,IR2=SH LIGHT SMOG
39.78	-84.08	10/28/76	17:45: 0	MAP	36.45	3	IR1=DV,IR2=DH LIGHT SMOG
39.78	-84.08	10/28/76	18: 0: 0	MAP	35.96	3	IR1=DV,IR2=SH LIGHT SMOG
39.78	-84.08	10/28/76	18:16:22	MAP	35.18	3	IR1=SH,IR2=SVB,A1=2R,A4=2R SHADOW BOARD NOW ON IR1
39.78	-84.08	10/28/76	18:30: 0	MAP	34.34	3	IR1=DH,IR2=SVB,A1=2R,A4=2R
39.78	-84.08	10/28/76	18:45: 0	MAP	33.22	3	IR1=SH,IR2=DH,A1=3R,A4=3R
39.78	-84.08	10/28/76	19: 0: 0	MAP	31.91	3	IR1=DH,IR2=DV,A1=3R,A4=3R
39.78	-84.08	10/28/76	19:15: 0	MAP	30.44	3	IR1=SH,IR2=DV,A1=3R,A4=3R
39.78	-84.08	10/28/76	19:30: 0	MAP	28.79	3	IR1=SH,IR2=SVB,A1=3R,A4=3R
39.78	-84.08	10/28/76	19:45: 0	MAP	27.01	3	IR1=DH,IR2=SVB,A1=3R,A4=3R
39.78	-84.08	10/28/76	20: 0: 0	MAP	25.08	3	IR1=SH,IR2=DH,A1=3R,A4=3R
39.78	-84.08	10/28/76	20:15: 0	MAP	23.03	3	IR1=DH,IR2=DV,A1=3R,A4=3R
39.78	-84.08	10/28/76	20:30: 0	MAP	20.87	3	IR1=SH,IR2=DV,A1=3R,A4=2R
39.78	-84.08	10/28/76	20:45: 0	MAP	18.61	3	IR1=SH,IR2=SVB,A1=3R,A4=2R
39.78	-84.08	10/28/76	21: 0: 0	MAP	16.27	3	IR1=DH,IR2=SVB,A1=3R,A4=3R
39.78	-84.08	10/28/76	21:15: 0	MAP	13.84	3	IR1=SH,IR2=DH,A1=3R,A4=3R
39.78	-84.08	10/28/76	21:30: 0	MAP	11.33	3	IR1=DH,IR2=DV,A1=3R,A4=3R
39.78	-84.08	10/28/76	21:45: 0	MAP	8.77	3	IR1=SH,IR2=DV,A1=3R,A3=1R,A4=3R
39.78	-84.08	10/28/76	22: 0: 0	MAP	6.14	3	IR1=SH,IR2=SVR1=2R,A3=1R,A4=2R
39.78	-84.08	10/28/76	22:15: 0	MAP	3.47	3	IR1=SH,IR2=DH,A1=2R,A2=2R,A3=2R,A4=2R
39.78	-84.08	10/28/76	22:30: 0	MAP	0.75	3	IR1=SH,IR2=DH,A1=2R,A2=2R,A3=2R,A4=2R

LAT	LONG	DATE	TIME	INST	SA	QUAL	COMMENTS
39.78	-84.08	10/29/76	14:35: 0	MAP	24.11	3	IR1=DV,IR2=DH,A1=3R A1,2,3 MODERATE SMOG
39.78	-84.08	10/29/76	14:50: 0	MAP	26.07	3	IR1=DV,IR2=SH,A1=3R,A2=1R A1,2,3 MOD SMOG
39.78	-84.08	10/29/76	15: 5: 0	MAP	27.90	3	IR1=SVB,IR2=SH,A1=3R,A2=1R A1,2,3 MOD SMOG
39.78	-84.08	10/29/76	15:20: 0	MAP	29.59	3	IR1=SVB,IR2=DH,A1=4R,A2=2R A1,2,3 MOD SMOG
39.78	-84.08	10/29/76	15:35: 0	MAP	31.12	3	IR1=DH,IR2=SH,A1=4R,A2=2R A1,2,3 MOD SMOG
39.78	-84.08	10/29/76	15:50: 0	MAP	32.48	3	IR1=DV,IR2=DH,A1=5R,A2=3R A1,2,3 MOD SMOG
39.78	-84.08	10/29/76	16: 5: 0	MAP	33.65	3	IR1=DV,IR2=SH,A1=3R,A2=3R,A4=1R,B1=2R MODERATE SMOG
39.78	-84.08	10/29/76	16:20: 0	MAP	34.64	3	IR1=SVB,IR2=SH,A1=2R,A2=2R,A4=1R,B1=3R MOD SMOG

APPENDIX D
SURROUND SPECTRAL REFLECTANCES

Graphs D-1 through D-14 show spectral reflectances of the terrain surrounding the measurement site, as estimated from U-2 color photography or geobotanical maps.

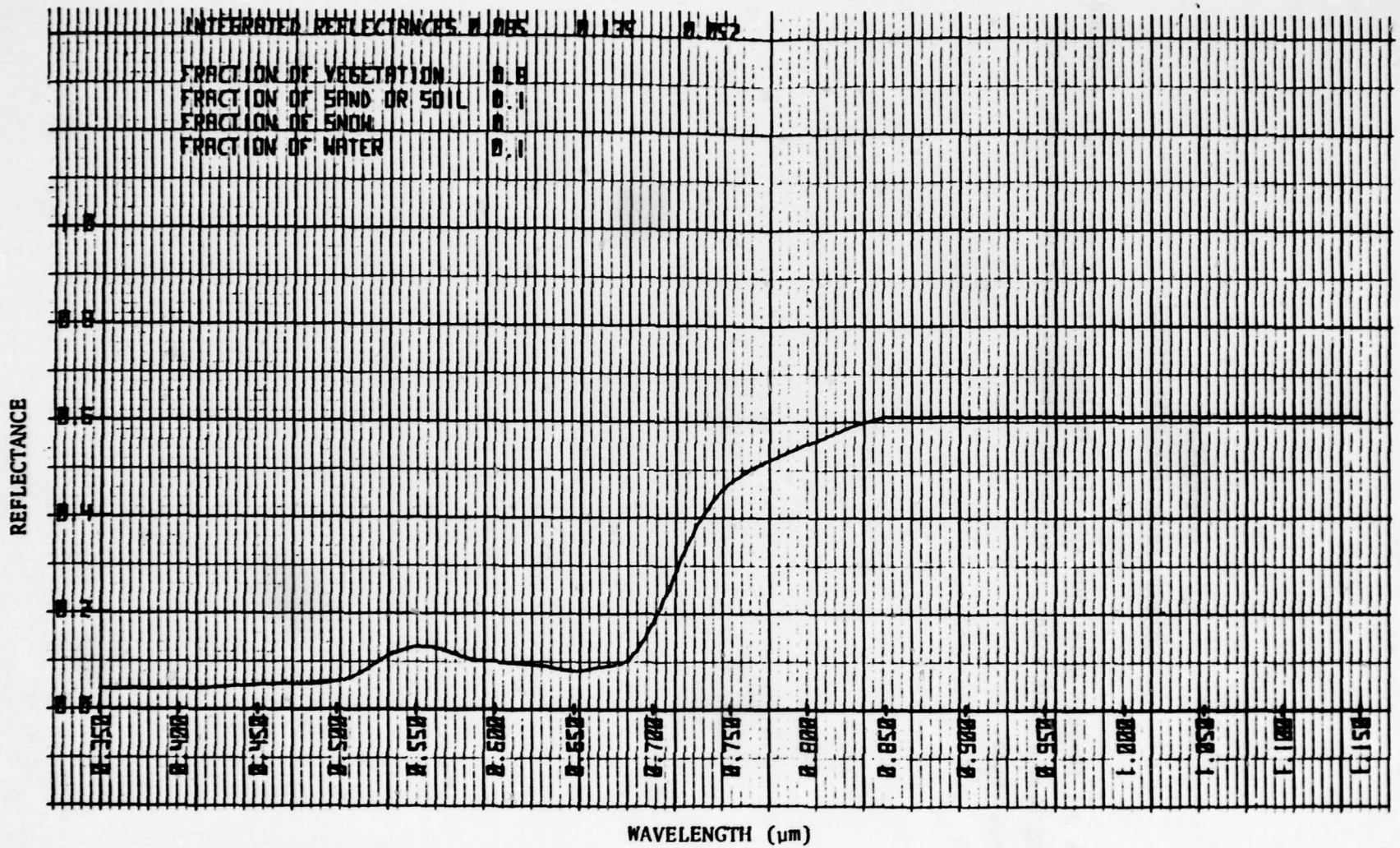

Figure D-1. Local Terrain Spectral Albedo Reflectance for Little Rock, Arkansas (Geo-Botanical)

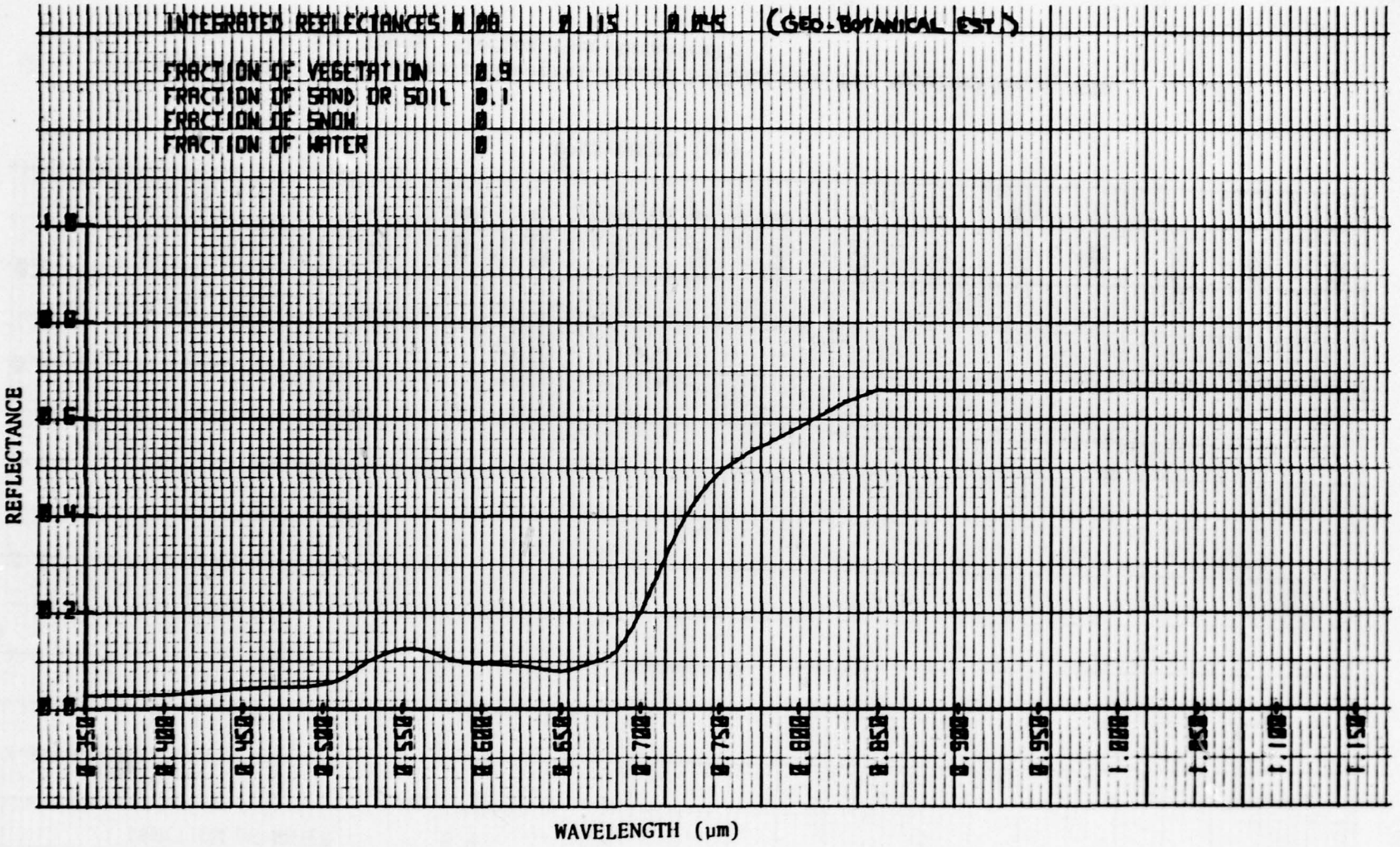

Figure D-2. Local Terrain Spectral Albedo Reflectance for Athens, Ga., and Vint Hill, Va. (Geo-Botanical)

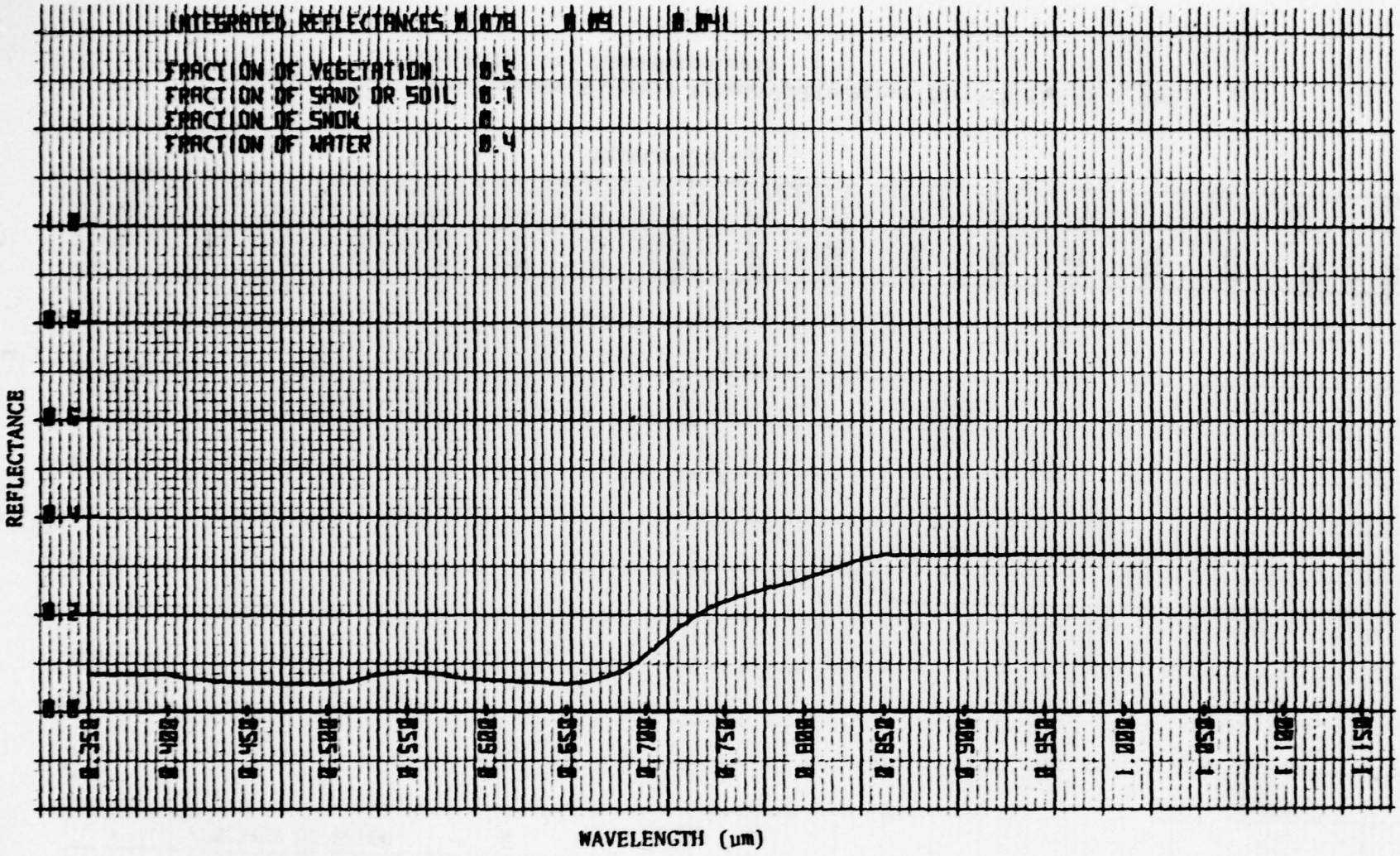

Figure D-3. Local Terrain Spectral Albedo Reflectance for Appalachicola, Fla., and Tampa, Florida (Geo-Botanical)

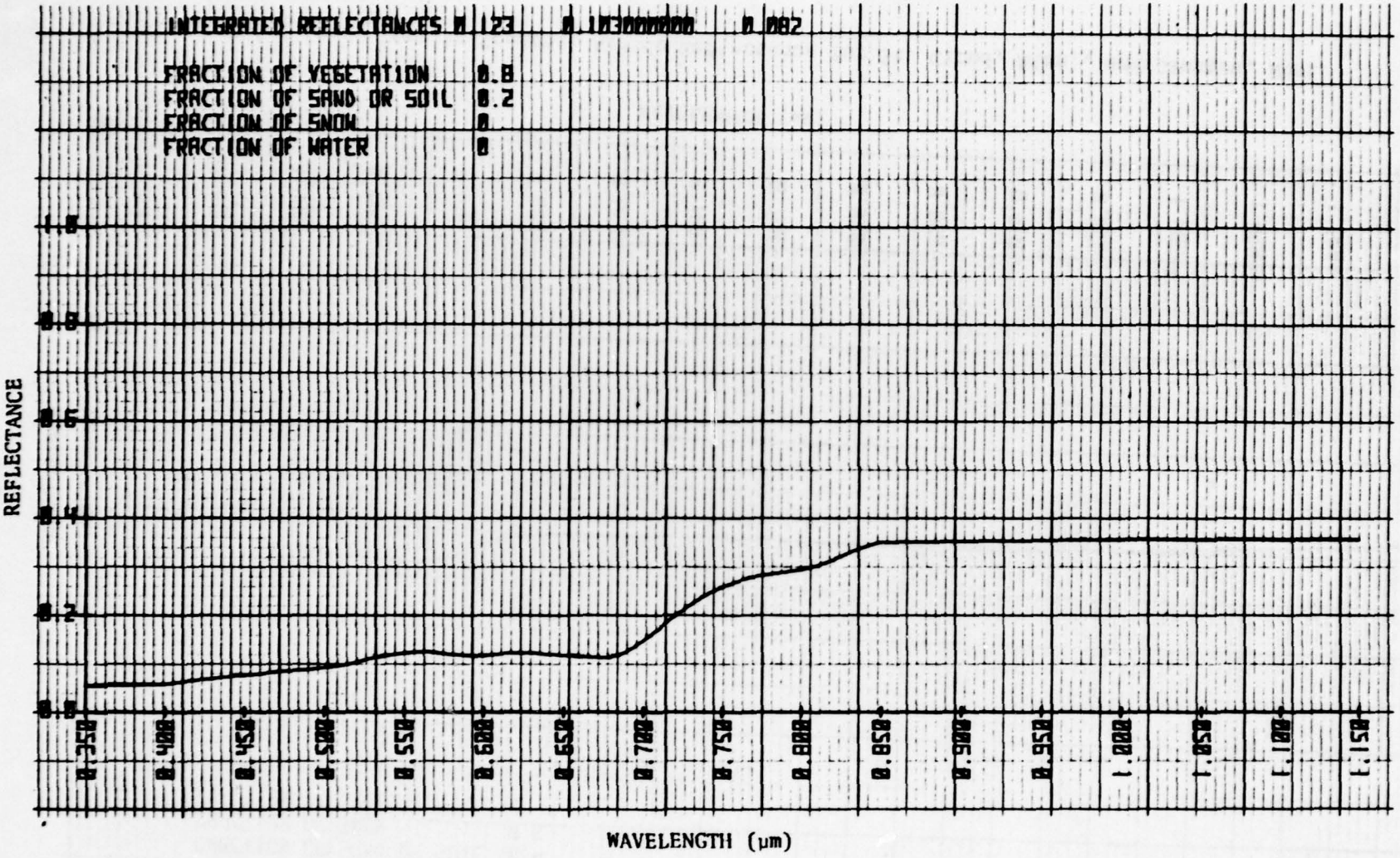

Figure D-4. Local Terrain Spectral Albedo Reflectance for Denver, Colorado

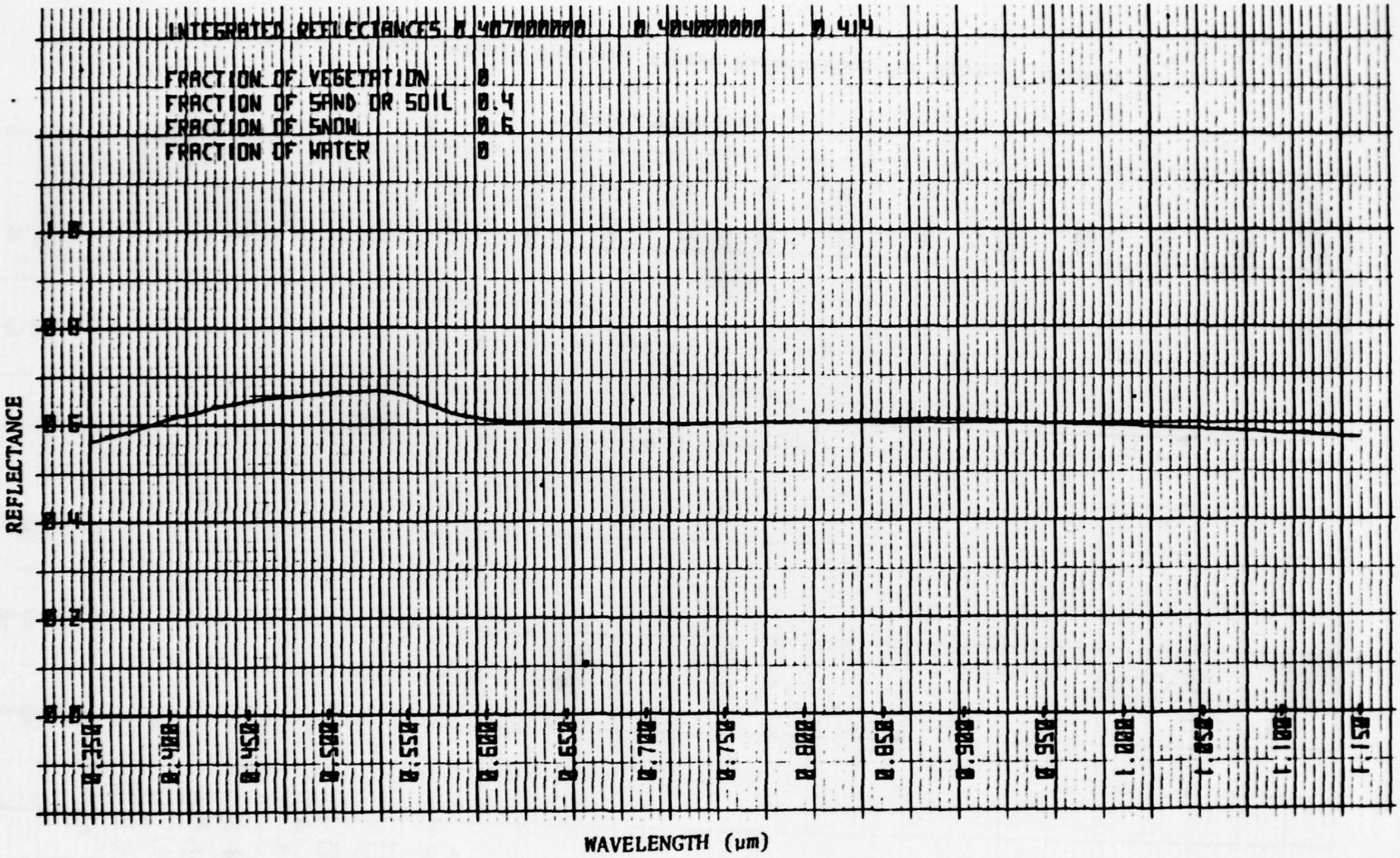

Figure D-5. Local Terrain Spectral Albedo Reflectance for St. Cloud, Minn., and Glasgow, Mont.

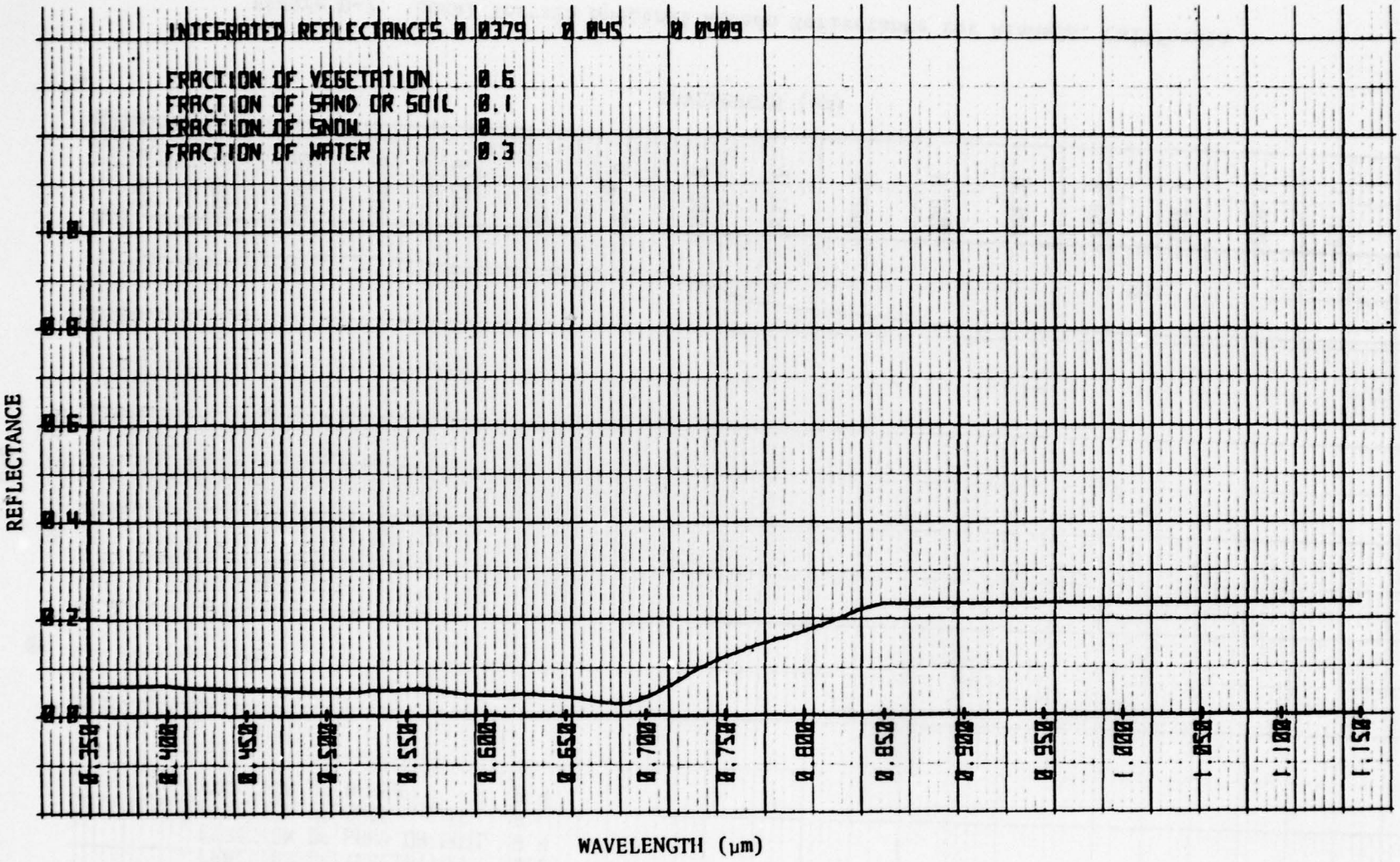

Figure D-6. Local Terrain Spectral Albedo Reflectance for Quillayute, Washington

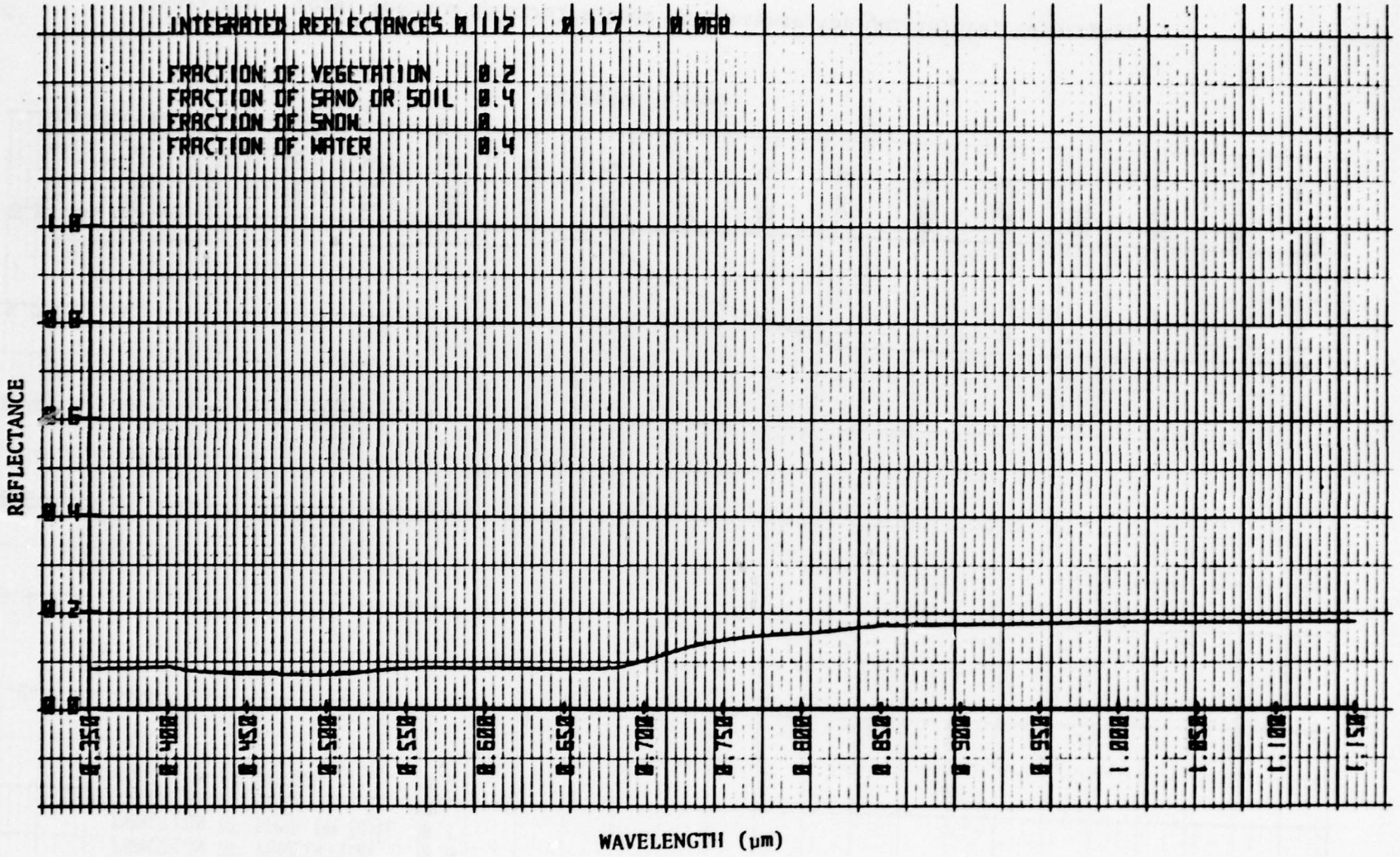

Figure D-7. Local Terrain Spectral Albedo Reflectance for Alameda, California

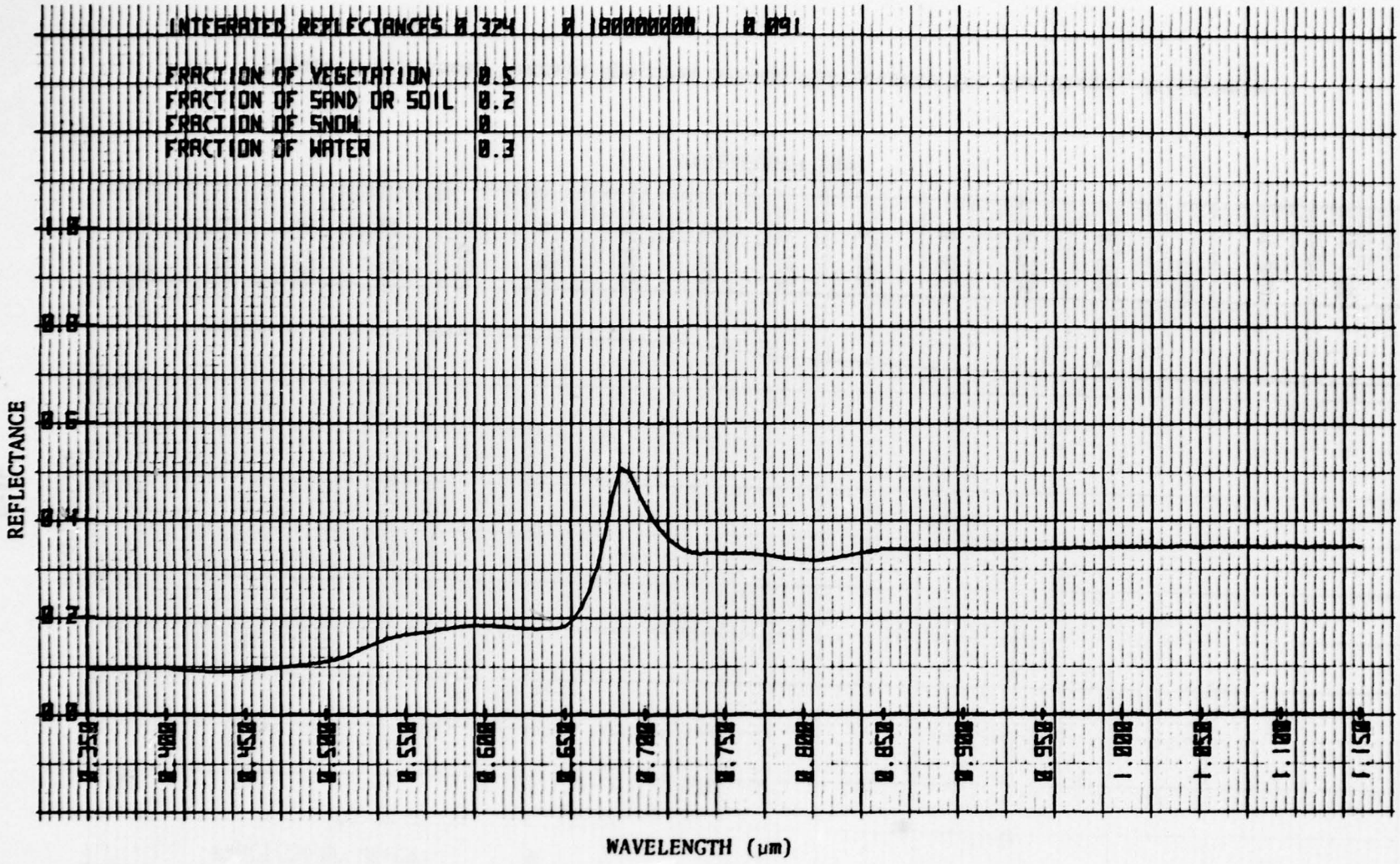

Figure D-8. Local Terrain Spectral Albedo Reflectance for Vandenberg, California

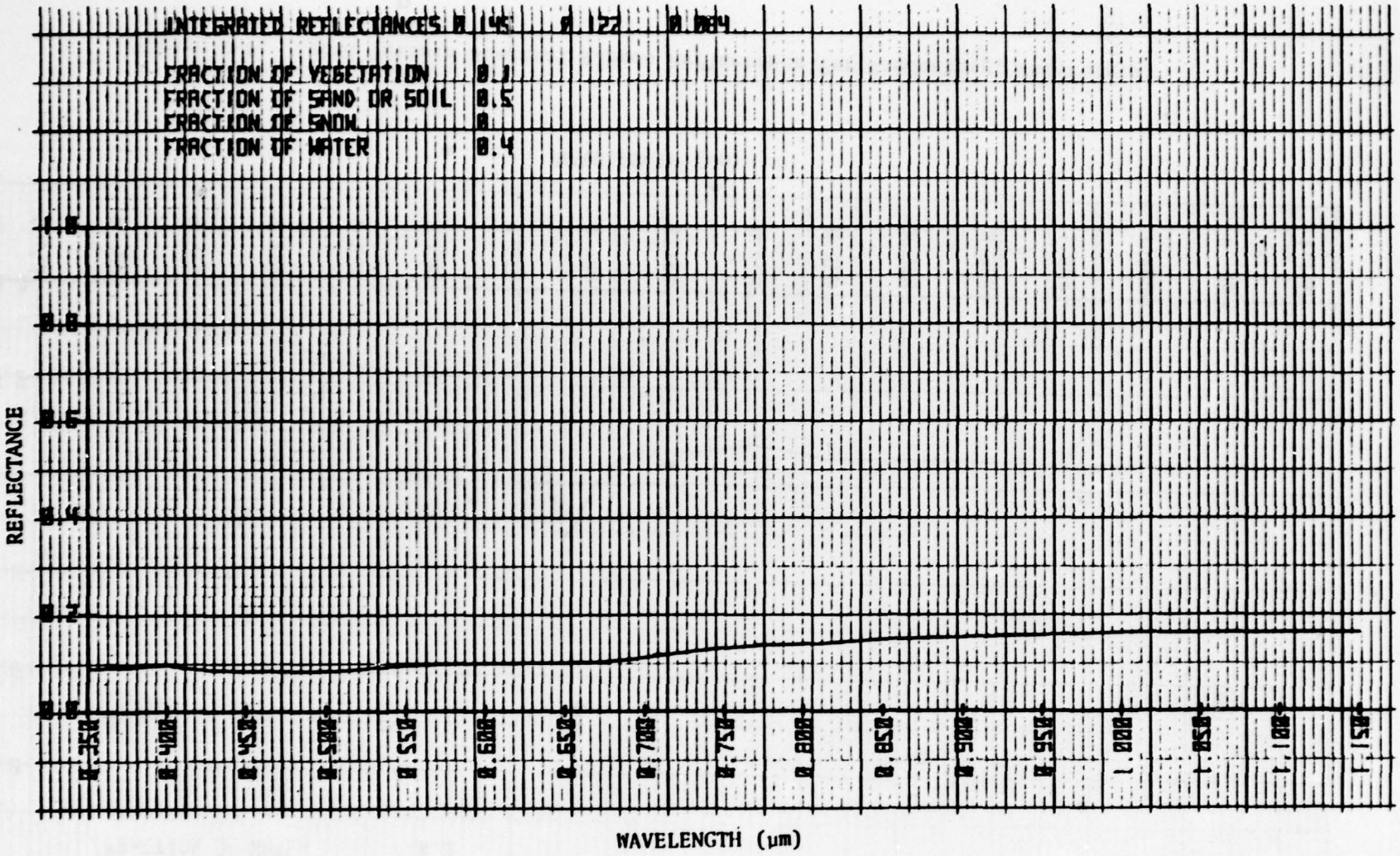

Figure D-9. Local Terrain Spectral Albedo Reflectance for San Diego, California

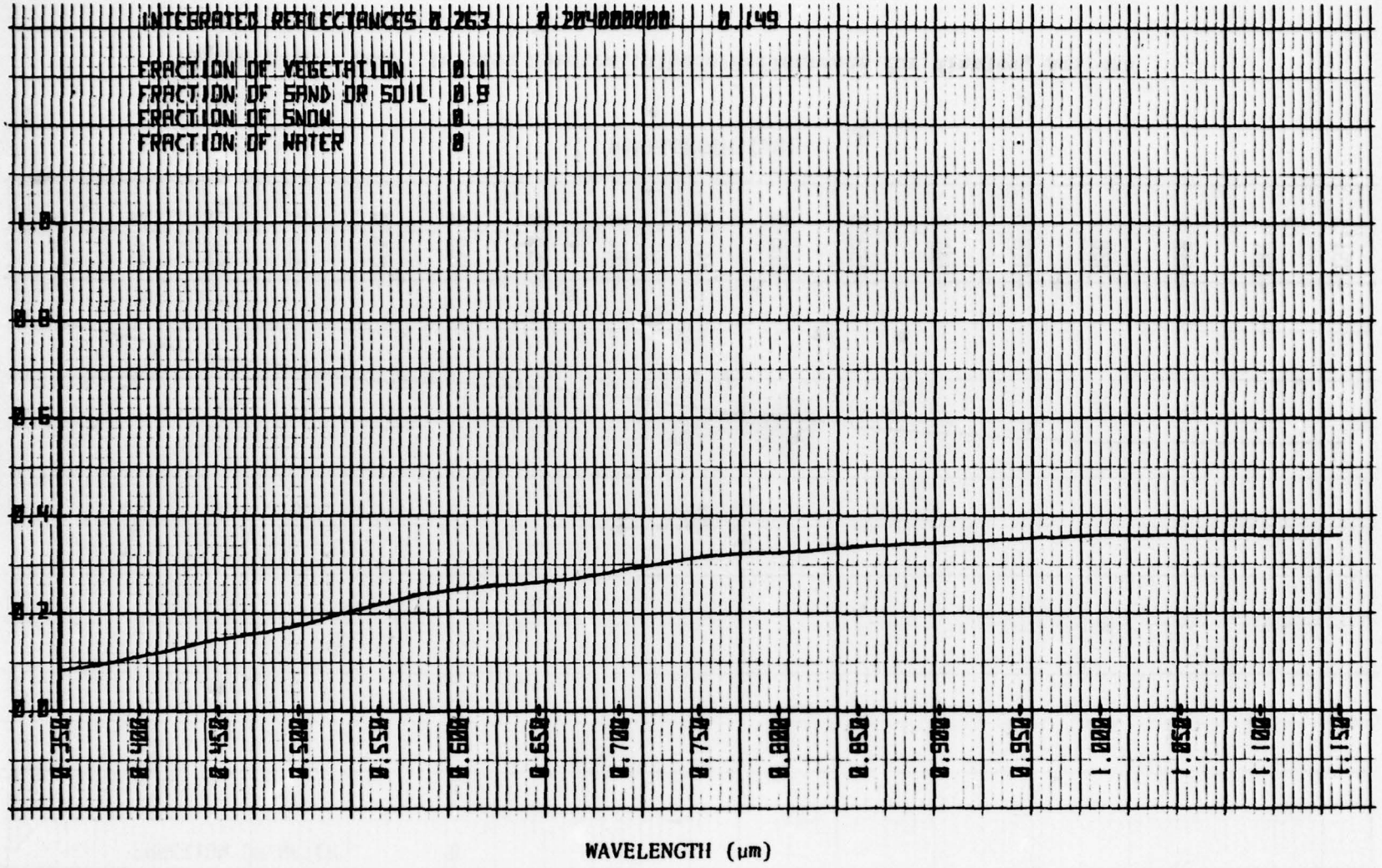

Figure D-10. Local Terrain Spectral Albedo Reflectance for Tucson, Arizona

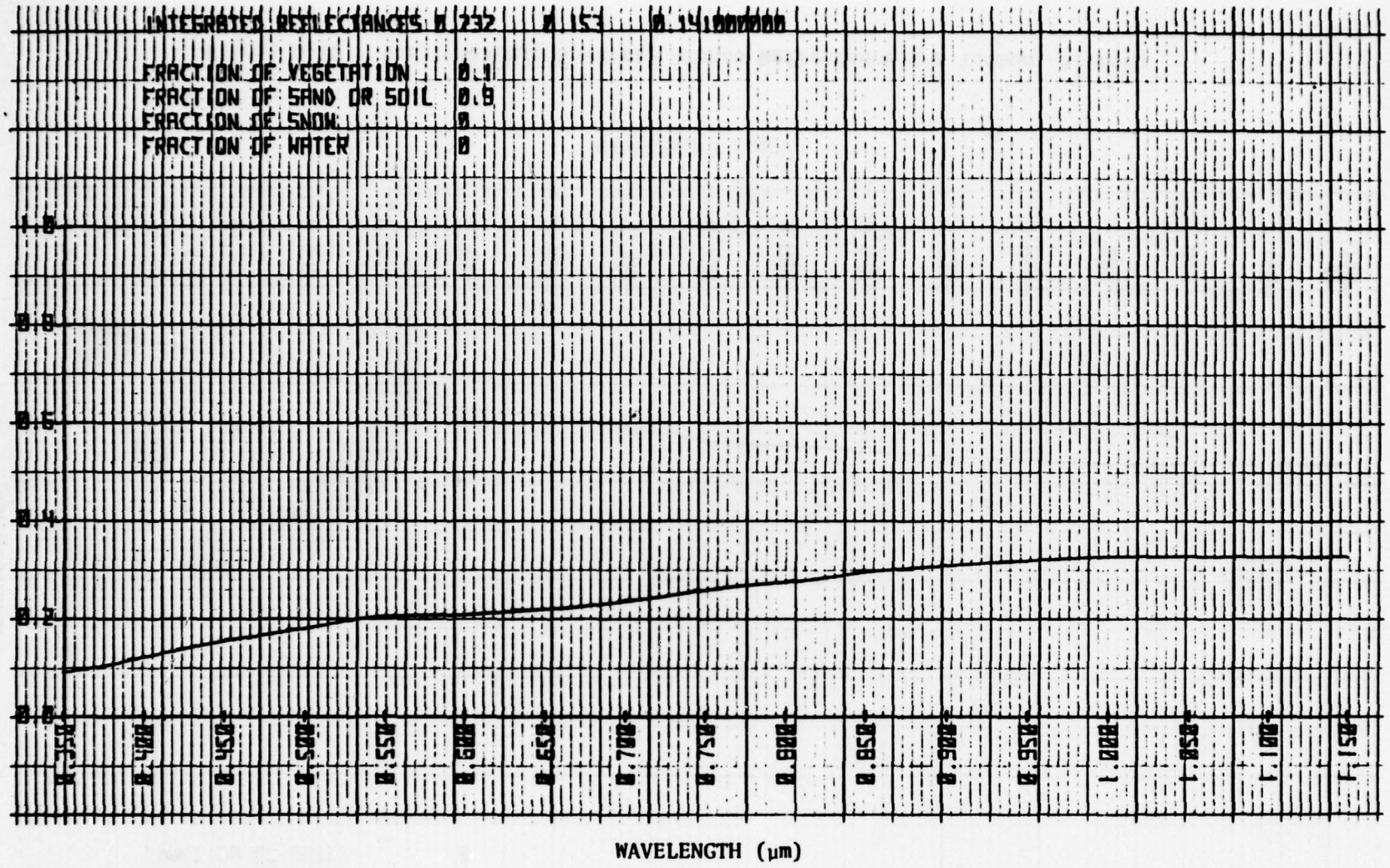

Figure D-11. Local Terrain Spectral Albedo Reflectance for Winslow, Arizona

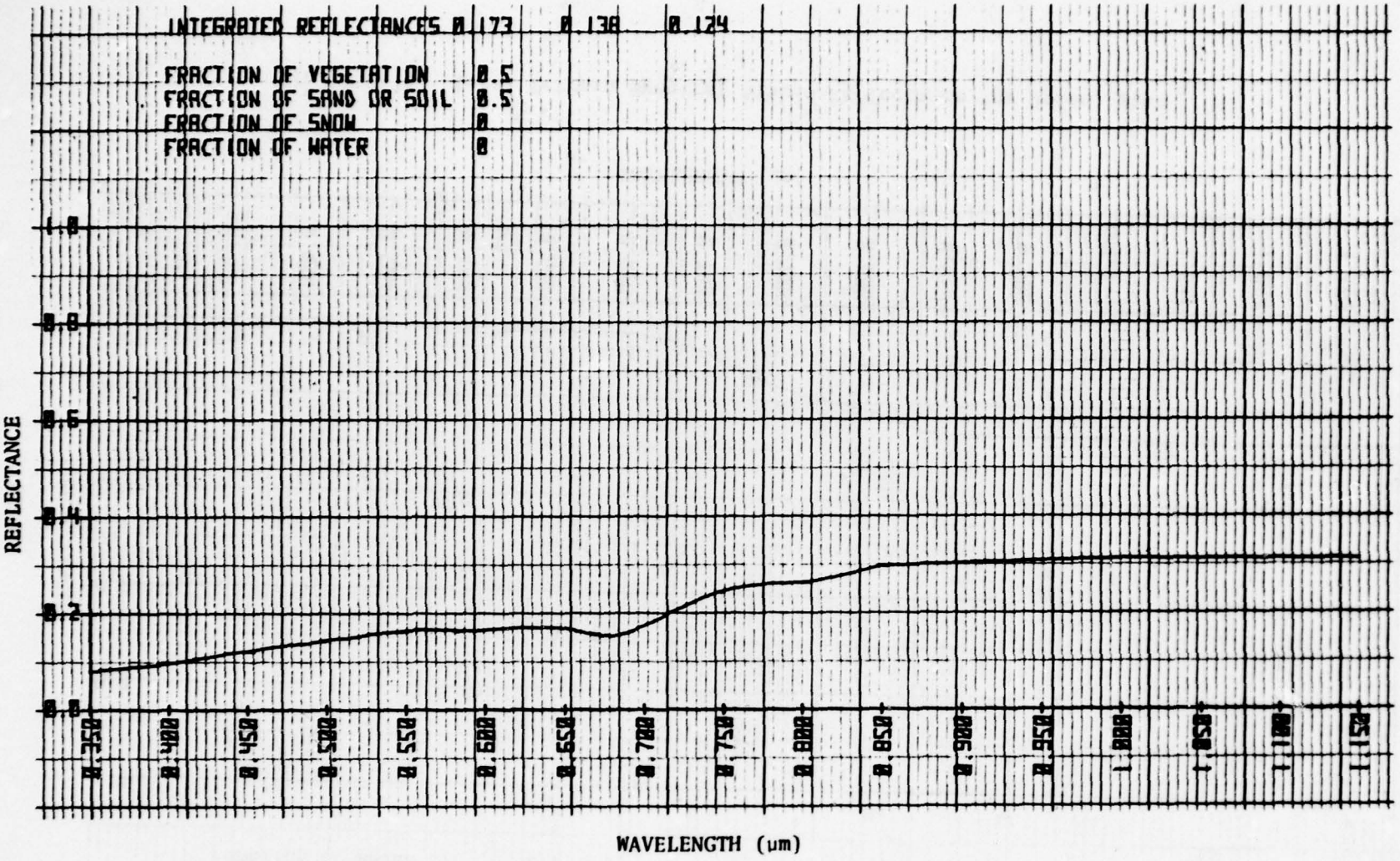

Figure D-12. Local Terrain Spectral Albedo Reflectance for Albuquerque, New Mexico

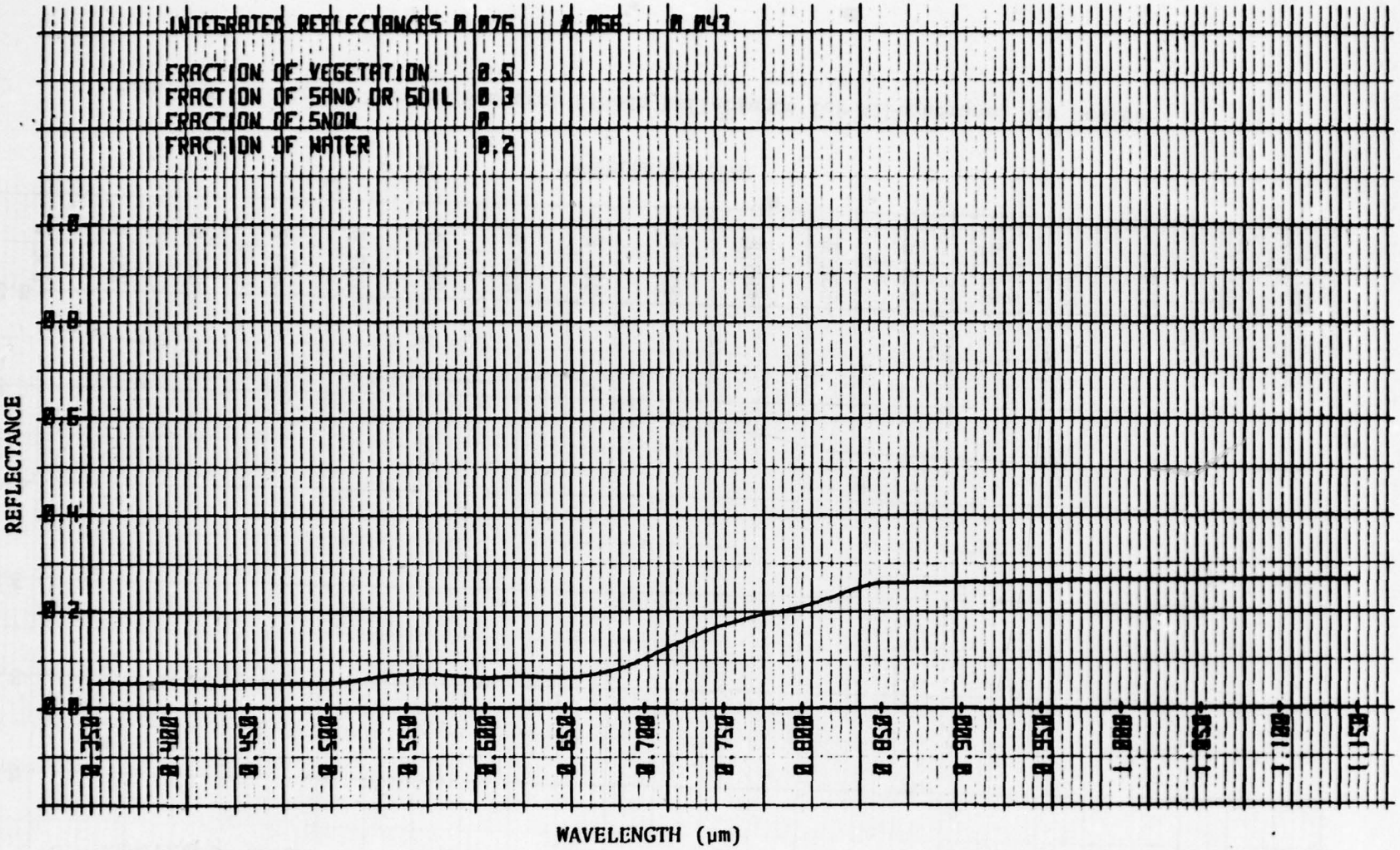

Figure D-13. Local Terrain Spectral Albedo Reflectance for Ogden, Utah

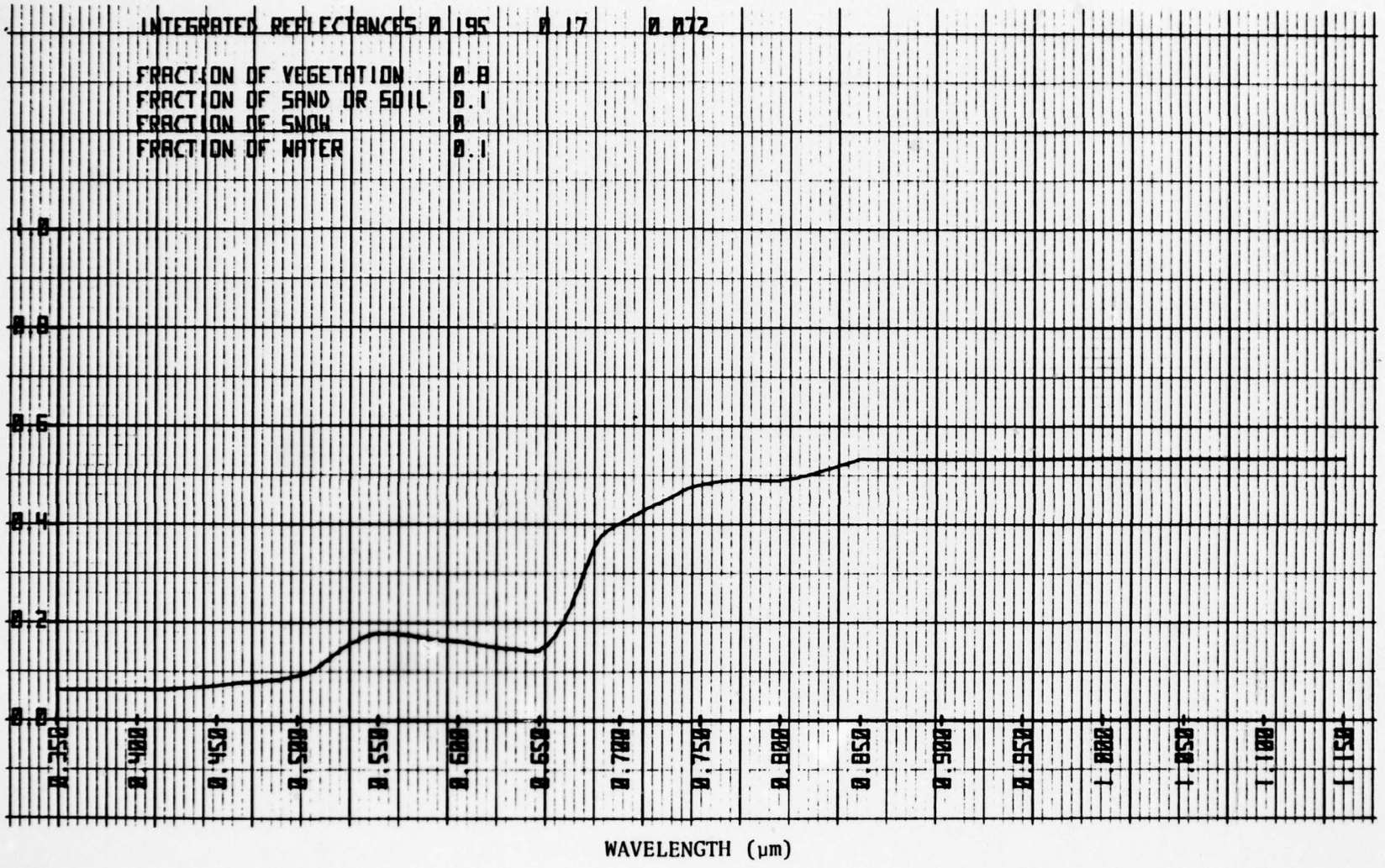

Figure D-14. Local Terrain Spectral Albedo Reflectance for Dayton, Ohio (Geo-Botanical)